

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Form 10-K/A
(Amendment No. 1)

(Mark One)

Annual report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934
For the fiscal year ended December 31, 1998 or

Transition report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934
For the transition period from ----- to -----

Commission File Number 0-16109

ADVANCED POLYMER SYSTEMS, INC.
(Exact name of registrant as specified in its charter)

Delaware 94-2875566

(State or other jurisdiction of incorporation or organization) (I.R.S. Employer Identification Number)

123 Saginaw Drive, Redwood City, California 94063

(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code: (650) 366-2626

Securities registered pursuant to Section 12 (b) of the Act: None

Securities registered pursuant to Section 12 (g) of the Act:
Common Stock (\$.01 par value)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (ss.229.405 of this chapter) is not contained herein, and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. [X]

The aggregate market value of the voting stock of the registrant held by non-affiliates of the registrant as of April 22, 1999, was \$72,900,410. (1)

As of April 22, 1999, 20,068,113 shares of registrant's Common Stock, \$.01 par value, were outstanding.

(1)Excludes 6,505,246 shares held by directors, officers and shareholders whose ownership exceeds 5% of the outstanding shares at April 22, 1999. Exclusion of such shares should not be construed as indicating that the holders thereof possess the power, directly or indirectly, to direct the management or policies of the registrant, or that such person is controlled by or under common control with the registrant.

DOCUMENTS INCORPORATED BY REFERENCE

Document

Form
10-K
Part

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Part III

Item 10. Directors and Executive Officers of the Registrant

DIRECTORS

NAME	AGE	POSITION WITH COMPANY	DIRECTOR SINCE
John J. Meakem, Jr.	62	Chairman, President and CEO	1991
Carl Ehmann, M.D. (3)	56	Director	1994
Jorge Heller, Ph.D. (3)	71	Director	1991
Peter Riepenhausen (2)	62	Director	1991
Toby Rosenblatt (1)(2)	60	Director	1983
Gregory H. Turnbull (1)	60	Director	1986
C. Anthony Wainwright (2)	65	Director	1996
Dennis Winger (1)	51	Director	1993

- (1) Member of the Finance and Audit Committee of the Board.
- (2) Member of the Compensation and Stock Option Committee of the Board.
- (3) Member of the Science Oversight Committee of the Board.

EXECUTIVE OFFICERS

NAME	AGE	POSITION WITH COMPANY
Michael O'Connell	49	Executive Vice President, Chief Financial and Administrative Officer of Company, President of Pharmaceutical Sciences
Les Riley	54	Senior Vice President; President of Dermatology and Skin Care
Subhash Saxena, Ph.D	52	Senior Vice President, Research and Development/Regulatory Affairs

John J. Meakem, Jr. -- chief executive officer and president of APS since June 1991, director since July 1991; chairman of APS board of directors since March 1993; chairman of Premier, Inc., a privately held company, from 1986 until its acquisition by APS in 1993. From 1970 to 1986, Mr. Meakem was with Combe, Inc. and served as corporate executive vice president and president of Combe, North America. Prior to that Mr. Meakem was vice president of Richardson-Vicks, Inc.

Carl Ehmann, M.D., F.A.C.P. -- director of APS since June 1994. Dr. Ehmann currently serves as Group Director, Global Research and Development of Reckitt & Colman plc. Formerly, he was executive vice president - research and development of R.J. Reynolds Tobacco Company where he also served as a member of the executive and operating committee from 1992 until 1996. From 1987 until 1992, he was executive vice president of research and development at Johnson & Johnson Consumer Products, Inc.

Jorge Heller, Ph.D. -- director of APS since April 1991. Dr. Heller is a full time consultant to the Company and its Chief Scientist. Prior to joining the Company, Dr. Heller was director of the controlled release and biomedical polymers program at SRI International until January 1994, where he was a staff member since 1974. He is also adjunct professor of pharmacy at the University of California, San Francisco, and at the University of Utah. He is editor of the Journal of Controlled Release and past president of the Controlled Release Society.

Peter Riepenhausen -- director of APS since April 1991. Mr. Riepenhausen is currently a business consultant. He was president and chief executive officer of ReSound Corporation from 1994 to 1998. He serves as a director of Weru A.G. He also served as a director of Caradon (Europe) plc from April 1994 until September 1998. He served as vice chairman of the board of

directors of The Cooper Companies, Inc. from January, 1987 until September, 1989, and from January, 1984 until December, 1986 he was executive vice president of The Cooper Companies, Inc. Mr. Riepenhausen has also held executive positions with Blendax-Werke R. Schneider GmbH & Co. of West Germany and Pepsico, Inc.

Toby Rosenblatt -- director of APS since September, 1983. Mr. Rosenblatt is president of The Glen Ellen Company and vice president of Founders Investments, Ltd. Both companies are involved in private investment activities. Mr. Rosenblatt also serves as a director of State Street Research Mutual Funds and is a trustee of numerous civic and educational institutions.

Gregory H. Turnbull -- director of APS since February, 1986. Mr. Turnbull is currently a business consultant and a director of Planar Systems, Inc. Previously, he was a general partner of Cable & Howse Ventures, a venture capital organization which he first joined in 1983, and of which he is currently a special limited partner. Prior to his work as a venture capitalist, Mr. Turnbull was an investment banker for 15 years with Morgan Stanley & Co. and White Weld & Co.

Charles Anthony Wainwright -- director of APS since November 1996. Mr. Wainwright is currently vice chairman of McKinney & Silver, a national advertising agency and a director of the following companies: Gibson Greetings, American Woodmark Corp., Del Webb Corp., Caribiner Corp., and Marketing Services Group, Inc. He was the chairman of Harris Drury Cohen from 1995 until early 1997 and from 1990 to 1995, he was the chairman of Compton Partners, Saatchi & Saatchi. He was also the president and chief operating officer of the Bloom Companies from 1980 until 1989.

Dennis Winger -- director of APS since February 1993. Mr. Winger is senior vice president and chief financial officer of Perkin-Elmer Corporation. From 1989 to 1997, Mr. Winger was senior vice president, finance and administration and chief financial officer of Chiron Corporation. He was also a member of Chiron's Strategy Committee. Prior to joining Chiron, Mr. Winger held a series of financial positions at The Cooper Companies, Inc., including chief financial officer.

Michael O'Connell - chief financial officer of APS since July 1992; senior vice president and chief administrative officer since 1993; executive vice president and president of APS' Pharmaceutical Sciences since 1998. From 1980 to 1992, he held various positions with The Cooper Companies including vice president, finance and corporate controller from 1989 to 1991, vice president, finance and administration of Coopervision Surgical from 1987 to 1989 and vice president, finance and administration of Coopervision International from 1986 to 1987.

Les Riley - senior vice president of APS and president of APS' Dermatology and Skin Care since January 1996. From 1993 to 1995, he was the chief executive officer and president of Tristrata Incorporated ("Tristrata"), a member of the board of directors of Neostrata Company ("Neostrata") a subsidiary of Tristrata, and chief executive officer of Neostrata. From 1976 to 1993, he held various positions with Ortho Pharmaceutical Corporation where he was president of the Dermatology Division from 1991 to 1993 in addition to being a member of the Board of Directors.

Subhash J. Saxena, Ph.D. - senior vice president of research and development/regulatory affairs of APS since 1998; vice president of research and development/regulatory affairs of APS since 1994; director of pharmaceutical sciences of APS since 1988. From 1983 to 1988, he was a director of research and development for VLI Corporation.

Item 11. Executive Compensation

SUMMARY COMPENSATION TABLE

NAME AND POSITION	YEAR	ANNUAL COMPENSATION		LONG-TERM COMPENSATION AWARDS		
		SALARY (\$)	BONUS (\$)	RESTRICTED STOCK AWARDS (\$)(1)	SECURITIES UNDERLYING OPTIONS (#)	ALL OTHER COMPENSATION
John J. Meakem, Jr.	1998	373,654	0	359,400	198,000	4,800(2)
Chairman, President	1997	339,635	100,000	0	50,000	4,569(2)
and Chief Executive	1996	324,693	0	0	0	4,500(2)

Officer

Michael O'Connell	1998	235,616	0	119,800	110,000	4,800(2)
Executive Vice	1997	211,769	56,000	0	40,000	4,750(2)
President, Chief Financial and Administrative Officer; President of Pharmaceutical Sciences	1996	195,962	10,000	0	40,000	4,500(2)
Les Riley	1998	235,616	0	119,800	75,000	4,800(2)
Senior Vice	1997	211,769	56,000	0	40,000	169,799(3)
President, President of Dermatology and Skin Care	1996	190,769	10,000	0	125,000	3,249(2)
Subhash Saxena, Ph.D.	1998	188,077	0	0	70,000	4,800(2)
Senior Vice	1997	166,731	37,500	0	20,000	4,560(2)
President, Research and Development/ Regulatory Affairs	1996	137,846	5,000	0	20,000	4,285(2)

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- (1) The dollar value of restricted stock awards net of consideration paid by the named executive officer was calculated using the closing market price of the Company's Common Stock on date the restricted stock award was granted. Each restricted stock award provides that for a period of three years after the award of restricted stock, the recipient may not sell, assign, transfer, pledge or otherwise encumber the shares of restricted stock. Any cash dividends with respect to shares of restricted stock are automatically reinvested in additional shares of restricted stock. Each restricted stock award provides that if the employee should leave the employ of the Company prior to three years from the date of award, unless waived by the administrator of the plan under certain circumstances, the Company will have the right to repurchase the restricted stock at their original purchase price of \$.01 per share. As of December 31, 1998, the Company had a total of 100,000 shares of restricted stock outstanding with an aggregate value of \$537,500 based on the value of the Company's shares at December 31, 1998.
- (2) The stated amounts are Company matching contributions to the Advanced Polymer Systems Salary Reduction Profit Sharing Plan. In 1998, the Company made matching contributions equal to 50% of each participant's contribution during the plan year up to a maximum amount equal to the lesser of 3% of each participant's annual compensation or \$4,800.
- (3) This amount consists of \$165,349 in relocation costs that were taxable to Mr. Riley in 1997 and \$4,450 in Company matching contribution to the Advanced Polymer Systems Salary Reduction Profit Sharing Plan. See note (2) above.

The following table sets forth certain information with respect to options granted during 1998 to the executive officers named in the Summary Compensation Table.

STOCK OPTION GRANTS IN 1998

NAME	INDIVIDUAL GRANTS				POTENTIAL REALIZABLE VALUE AT ASSUMED ANNUAL RATES OF STOCK PRICE APPRECIATION FOR OPTION TERM(1)	
	NUMBER OF SECURITIES TO UNDERLYING OPTIONS GRANTED (#)(2)	% OF TOTAL OPTIONS GRANTED TO EMPLOYEES IN FISCAL YEAR	EXERCISE PRICE (\$/SH)	EXPIRATION DATE	5%(\$)	10%(\$)
John J. Meakem, Jr.	60,000	8.5	\$7.000	03/06/08	264,136	669,372

	95,000	13.5	\$4.188	10/20/08	250,212	634,086
	43,000	6.1	\$4.625	12/16/08	125,071	316,956
Michael P.J. O'Connell	20,000	2.8	\$6.375	01/13/08	80,184	203,202
	60,000	8.5	\$4.188	10/20/08	158,029	400,476
	30,000	4.2	\$4.625	12/16/08	87,259	221,132
Les Riley	20,000	2.8	\$6.375	01/13/08	80,184	203,202
	25,000	3.6	\$4.188	10/20/08	65,845	166,865
	30,000	4.3	\$4.625	12/16/08	87,259	221,132
Subhash Saxena, Ph.D.	20,000	2.8	\$6.000	06/23/08	75,467	191,249
	30,000	4.3	\$4.188	10/20/08	79,014	200,238
	20,000	2.8	\$4.625	12/16/08	58,173	147,421

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- (1) Potential realizable value is based on an assumption that the price of the Common Stock appreciates at the annual rate shown (compounded annually) from the date of grant until the end of the ten year option term. The numbers are calculated based on the requirements promulgated by the Securities and Exchange Commission ("SEC") and do not reflect the Company's estimate of future stock price growth.
- (2) The options granted under the Company's 1992 Stock Plan typically vest over 4 years at 25% annually. Payments on exercise, including any taxes the Company is required to withhold, may be made in cash, by a full recourse promissory note or by tender of shares. Options are granted at fair market value on the date of grant.

The following table sets forth certain information with respect to options exercised during 1998 and the value of options held at fiscal year end by the executive officers named in the Summary Compensation Table.

AGGREGATED OPTION EXERCISES IN 1998 AND 1998 YEAR-END OPTION VALUES

NAME	SHARES ACQUIRED UPON OPTION EXERCISE (#)	VALUE REALIZED (\$)(1)	NUMBER OF UNEXERCISED OPTIONS AT 1998 YEAR-END		VALUE OF UNEXERCISED IN-THE-MONEY OPTIONS AT FISCAL YEAR END (2)	
			EXERCISABLE (#)	UNEXERCISABLE (#)	EXERCISABLE (\$)	UNEXERCISABLE (\$)
John J. Meakem, Jr.	20,000	100,938	625,081	225,833	189,903	115,369
Michael P.J. O'Connell	0	0	330,833	119,167	74,216	71,689
Les Riley	0	0	151,146	88,854	22,500	29,675
Subhash Saxena, Ph.D.	0	0	139,667	70,833	55,000	35,923

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- (1) Market value of underlying securities at exercise less the exercise price.
- (2) Market value of underlying securities at fiscal year-end minus the exercise price of "in-the-money" options.

Item 12. Security Ownership of Certain Beneficial Owners and Management

The following table sets forth beneficial Common Stock ownership as of April 22, 1999, by (i) each person who is known by the Company to own beneficially more than 5% of the outstanding shares of Common Stock, (ii) each director and each executive officer named in the Summary Compensation Table above, and (iii) all executive officers and directors as a group. Each person has sole investment and voting power with respect to the shares indicated, subject to community property laws where applicable and except as otherwise set forth in the footnotes to the table.

NAME	NUMBER OF SHARES(1)	PERCENT OF CLASS(1)
Carl Ehmann, M.D., F.A.C.P.(2)	67,686	*
Jorge Heller, Ph.D.(3)	100,686	*
John J. Meakem, Jr.(4)	905,967	4.4

Michael O'Connell(5)	371,526	1.8
Peter Riepenhausen(6)	93,686	*
Les Riley(7)	194,098	1.0
Toby Rosenblatt(8)	266,212	1.3
Subhash Saxena, Ph.D.(9)	149,912	*
Gregory H. Turnbull(10)	75,686	*
C. Anthony Wainwright(11)	24,186	*
Dennis Winger(12)	75,686	*
Johnson & Johnson Development Corporation(13)	1,332,101	6.6
One Johnson & Johnson Plaza New Brunswick, NJ 08933		
Citigroup, Inc.(14)	4,657,561	23.2
388 Greenwich Street New York, NY 10013		
Officers and Directors as a group(11 persons) (2)(3)(4)(5)(6)(7)(8)(9)(10)(11)(12)	2,325,331	10.6

* Less than one percent.

- (1) Assumes the exercise of all outstanding options and warrants to purchase Common Stock held by such person or group to the extent exercisable on or before June 22, 1999, and that no other person has exercised any outstanding stock options.
- (2) Includes 65,000 shares underlying presently exercisable stock options.
- (3) Includes 90,000 shares underlying presently exercisable stock options.
- (4) Includes 654,247 shares underlying presently exercisable stock options.
- (5) Includes 346,249 shares underlying presently exercisable stock options.
- (6) Includes 8,000 shares held as joint tenant with Mr. Riepenhausen's spouse and 85,000 shares underlying presently exercisable stock options.
- (7) Includes 172,917 shares underlying presently exercisable stock options.
- (8) Includes 75,000 shares underlying presently exercisable stock options.
- (9) Includes 148,834 shares underlying presently exercisable stock options.
- (10) Includes 75,000 shares underlying presently exercisable stock options.
- (11) Includes 22,500 shares underlying presently exercisable stock options.
- (12) Includes 75,000 shares underlying presently exercisable stock options.
- (13) Based solely on information contained in a Schedule 13G dated July 6, 1998.
- (14) Based solely on information contained in a Schedule 13G dated January 8, 1999, and includes 1,659,500 shares held by Mutual Management Corporation and 2,998,061 shares held by Solomon Smith Barney, Inc.

Item 13. Certain Relationships and Related Transactions

The Company entered into a three-year employment agreement with Mr. Meakem in May 1993. In 1995, the employment agreement was amended to extend the term for an additional three years and provide for automatic yearly extensions thereafter unless written notice of its intention not to automatically extend the agreement is given by either party and was further amended in April 1999 to include in the definition of "change in control" a change in a majority of the Board of Directors discussed below. The employment agreement provides that Mr. Meakem may elect to terminate his employment within stated periods of a change in control of the Company and receive an amount equal to his prior twelve months' salary and bonus, payable over the subsequent twelve month period. Mr. Meakem is entitled to receive an amount equal to twice his prior twelve months' salary and bonus if the Company should terminate his employment within stated periods of a change in control or if he elects to terminate his employment following a change in control if his position with the Company is reduced in terms of responsibility or indicia of status. "Change in control" under the agreement is defined to include an acquisition of more than fifty percent of the outstanding shares of the Company or a change in the majority of the individuals who were members of the Board of Directors in May 1993 (the "Initial Directors") plus any new directors who were approved by a majority of the original Initial Directors and any new directors who were so approved by them, but excluding any new director who initially assumed office as a result of an actual or threatened contested election of directors.

As of April 26, 1999, the Company had an outstanding secured loan receivable

of \$235,000 from John J. Meakem, Jr. The loan is secured by the shares of Company stock owned by Mr. Meakem. In 1998, the Company charged an interest rate of 5% on this loan, which was intended to be equivalent to interest earned by the Company on its short term investments. The rate of interest was increased beginning March 1, 1999 to a rate equal to the Company's cost of funds (approximately 13.87%) or, if lower, the highest rate permitted under applicable law. The loan was approved by the Compensation and Stock Option Committee of the Company's Board of Directors. Repayment of the loan is due on or before December 31, 1999.

During 1998, the Company paid to Dr. Carl Ehmann, Dr. Jorge Heller (who consults for the Company on a full time basis and is the Company's Chief Scientist), Peter Riepenhausen and Mr. C. Anthony Wainwright, all who are directors of the Company for consulting services in their fields of expertise, the respective amounts of \$3,000, \$160,000, \$7,500 and \$4,500, respectively. Payments for similar services in 1997 were \$0, \$144,999, \$0 and \$2,000, respectively, and in 1996 were \$0, \$127,000, \$0 and \$0, respectively.

The Company has entered into agreements with Biosource Technologies, Inc. ("Biosource") of which Toby Rosenblatt is a stockholder and a former director. All agreements between APS and Biosource have been, and will continue to be, considered and approved by a vote of the disinterested directors. The agreements provided APS worldwide rights to use and sell Biosource's biologically-synthesized melanin in Microsponge(R) systems for all sun protection, cosmetic, ethical dermatology and over-the-counter skin care purposes. In return, APS was required to make annual minimum purchases of melanin, pay royalties on sales of APS melanin-Microsponge products and was required to prepay \$500,000 of royalties. For estimated losses on purchase commitments and related inventory, the Company accrued \$1,400,000 in 1996. All minimum financial commitments under the current agreements have been expensed by APS. In 1996, APS paid Biosource the 1995 minimum purchase commitment by issuing Biosource 94,000 shares of APS common stock. In November 1997 Biosource filed a complaint against the Company in the San Mateo Superior Court alleging failure to make annual minimum purchases of melanin and the Company cross complained. In December 1998, the Company reached a settlement agreement with Biosource for a net amount of \$1,300,000, which consists of a \$1,500,000 settlement of Biosource's claims and a \$200,000 settlement of the Company's cross claims.

Part IV

Item 14. Exhibits, Financial Statement Schedules, and Reports on Form 8-K

(a) 3. Exhibits

- 3-A-Copy of Registrant's Certificate of Incorporation. (1)
- 3-B-Copy of Registrant's Bylaws. (1)
- 10-C-Registrant's 1992 Stock Plan dated August 11, 1992. (2)*
- 10-D-Registrant's 1997 Employee Stock Purchase Plan dated March 5, 1997 (7)*
- 10-E-Lease Agreement between Registrant and Metropolitan Life Insurance Company for lease of Registrant's executive offices in Redwood City dated as of November 17, 1997. (9)
- 10-N-Agreement with Johnson & Johnson dated April 14, 1992. (3)
- 10-P-Warrant to Purchase Common Stock. (4)
- 10-S-Lease Agreement between Registrant and Financing for Science International dated September 1, 1995 (5)
- 10-V-Investment Agreement between Registrant and Lander Company. (6)
- 10-W-License, Assignment and Supply Agreement between Registrant and Lander Company. (8)
- 10-X-Employment Agreement between the Registrant and John J. Meakem, Jr., as amended. *
- 10-Y-Master Loan and Security Agreement with Finova Capital Corporation dated March 29, 1999 with exhibits.

-
- (1)Filed as an Exhibit with corresponding Exhibit No. to Registrant's Registration Statement on Form S-1 (Registration No. 33-15429) and incorporated herein by reference.
 - (2)Filed as Exhibit No. 28.1 to Registrant's Registration Statement on Form S-8 (Registration No. 33- 50640), and incorporated herein by reference.
 - (3)Filed as an Exhibit with corresponding Exhibit No. to Registrant's Annual Report on Form 10-K for the year ended December 31, 1992, and incorporated herein by reference.
 - (4)Filed as an Exhibit with corresponding Exhibits 4.1, 4.2, 4.3 and 4.4 to Registrant's Registration Statement on Form S-3 (Registration No.33-82562) and incorporated herein by reference.
 - (5)Filed as an Exhibit with corresponding Exhibit No. to Registrant's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 1995.
 - (6)Filed as an Exhibit with corresponding Exhibit No. to Registrant's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 1996, and incorporated herein by referenced.
 - (7)Filed an Exhibit No. 99.1 to Registrant's Registration Statement on Form S-8 (Registration No. 333-35151), and incorporated herein by reference.
 - (8)Filed as an Exhibit with corresponding Exhibit No. to Registrant's Annual Report on Form 10-K for the year ended December 31, 1996 and incorporated herein by reference.
 - (9)Filed as an Exhibit with corresponding Exhibit No. to Registrant's Annual Report on Form 10-K for the year ended December 31, 1997, and incorporated herein by reference.

* Management Contract or Compensatory plans.

(b) Reports on Form 8-K
None.

(c) Exhibits

The Company hereby files as part of this Form 10-K the exhibits listed in Item 14(a)3 as set forth above.

(d) Financial Statement Schedules
See Item 14(a)2 of this Form 10-K.

For purposes of complying with the amendments to the rules governing Registration Statements on Form S-8 (effective July 13, 1990) under the Securities Act of 1933 ("the Act"), as amended, the undersigned registrant hereby undertakes as follows, which undertaking shall be incorporated by reference into Part II of the registrant's Registration Statements on Form S-8 Nos. 33-18942, 33-21829, 33-29084, 33-50640, 333-06841, 333-35151 and 333-60585 filed on April 25, 1990, May 12, 1988, September 30, 1991, August 11, 1992, June 26, 1996, September 8, 1997 and August 4, 1998, respectively.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirement of Section 13 or 15 (d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

ADVANCED POLYMER SYSTEMS, INC.

By: /s/John J. Meakem, Jr.

 John J. Meakem, Jr.
 Chairman, President, Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
----- /S/ John J. Meakem, Jr. ----- John J. Meakem, Jr.	Chairman, President, Chief Executive Officer	April 29, 1999 -----
----- /S/ Michael O'Connell ----- Michael O'Connell	Executive Vice President, Chief Administrative Officer and Chief Financial Officer	April 29, 1999 -----
----- /S/ Carl Ehmann ----- Carl Ehmann	Director	April 29, 1999 -----
----- /S/ Jorge Heller ----- Jorge Heller	Director	April 29, 1999 -----
----- /S/ Peter Riepenhausen ----- Peter Riepenhausen	Director	April 29, 1999 -----
----- /S/ Toby Rosenblatt ----- Toby Rosenblatt	Director	April 29, 1999 -----
----- /S/ Gregory H. Turnbull ----- Gregory H. Turnbull	Director	April 29, 1999 -----
----- /S/ C. Anthony Wainwright ----- C. Anthony Wainwright	Director	April 29, 1999 -----
----- /S/ Dennis Winger ----- Dennis Winger	Director	April 29, 1999 -----

EXHIBIT INDEX
Form 10-K Annual Report

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 - (7)Filed an Exhibit No. 99.1 to Registrant's Registration Statement on Form S-8 (Registration No. 333-35151), and incorporated herein by reference.
 - (8)Filed as an Exhibit with corresponding Exhibit No. to Registrant's Annual Report on form 10-K for the year ended December 31, 1996, and incorporated herein by reference.
 - (9)Filed as an Exhibit with corresponding Exhibit No. to Registrant's Annual Report on Form 10-K for the year ended December 31, 1997, and incorporated herein by reference.

* Management Contract or Compensatory plans.

EMPLOYMENT AGREEMENT

THIS EMPLOYMENT AGREEMENT (the "Agreement") is made and entered into effective May 1, 1993 ("Effective Date") by and between ADVANCED POLYMER SYSTEMS, INC., a Delaware corporation, ("Corporation") and JOHN J. MEAKEM ("Officer").

R E C I T A L

Corporation desires to employ officer as its President and Chief Executive Officer, and Officer is willing to accept such employment by Corporation, on the terms and subject to the conditions set forth in this Agreement.

A G R E E M E N T

THE PARTIES AGREE AS FOLLOWS:

1. DUTIES.

1.1 POSITION. Officer agrees to be employed by and to serve Corporation as its President and Chief Executive Officer during the term hereof, and Corporation agrees to employ and retain Officer in such capacities during the term hereof. Officer shall devote his best efforts to the performance of his duties hereunder. Officer shall have powers and duties commensurate with his positions as President and Chief Executive officer, and shall have appropriate office and secretarial assistance as necessary to perform such duties. Officer shall not undertake other business activities during the term of his employment without the consent of the Board of Directors of Corporation.

1.2 BOARD MEMBER. So long as Officer is serving as its President and Chief Executive officer, Corporation shall cause Officer to be nominated for election as a Director at each annual meeting of Corporation's stockholders.

2. EMPLOYMENT.

2.1 DEFINITION. For purposes of this Agreement, "Termination for Cause" shall mean termination by Corporation of Officer's employment by Corporation by reason of Officer's dishonesty or fraud, or deliberate material injury or attempted material injury to Corporation, or by reason of Officer's material breach of this Agreement.

2.2 TERM OF EMPLOYMENT. Unless terminated earlier pursuant to this Section 2, the term of employment of Officer by Corporation shall be for a period of three years from the Effective Date.

2.3 TERMINATION FOR CAUSE. Termination for Cause may be effected by Corporation at any time by notice to Officer. Upon a Termination for Cause, Corporation shall immediately pay to Officer any accrued salary, any other compensation to the extent earned, any benefits under any plans of Corporation in which Officer is a participant to the full extent of Officer's rights under such plans, any accrued vacation pay and any appropriate business expenses incurred by Officer in connection with his duties hereunder, all to the date of termination, but Officer shall not be paid any other compensation or reimbursement of any kind, including without limitation, severance compensation.

2.4 DEATH; TERMINATION BY REASON OF DISABILITY. In the event of Officer's death during the term of this Agreement, Officer's employment shall be deemed to have terminated as of the last day of the month during which his death occurs. If officer, in the reasonable judgment of the Board of Directors of Corporation, has failed to perform his duties under this Agreement on account of illness or physical or mental incapacity and such illness or incapacity continues for a period of more than six consecutive months, Corporation shall have the right to terminate Officer's employment hereunder as of the last day of any month thereafter by notice to Officer. In either such event, Corporation shall pay to Officer or his estate, as the case may be, any accrued salary, any other compensation to the extent earned, any benefits under any plans of corporation in which Officer is a participant to the full extent of Officer's rights under such plans, any accrued vacation pay and any appropriate business expenses incurred by officer in connection with his duties hereunder, all to the date of termination, but no other compensation or reimbursement of any kind, except for any disability payments and benefits payable to Officer, under any disability plans then maintained by Corporation, up to the balance of the original three year term hereof.

3. SALARY, OPTIONS AND BENEFITS.

3.1 SALARY. As payment for the services to be rendered by Officer as provided in Section 1 and subject to the terms and conditions of Section 2, Corporation agrees to pay to Officer a Salary at the rate of \$285,000 per annum payable in equal semi-monthly installments, which salary shall be subject to annual review for consideration of any increase thereto.

3.2 ADDITIONAL BENEFITS. During his term of employment, officer shall be entitled to the following benefits:

3.2.1 **BENEFIT PLANS.** Officer shall be eligible to participate in all benefit plans generally available to the senior management of Corporation, including such health and disability coverage and life insurance as is available from time to time, and any incentive plans adopted by Corporation.

3.2.2 **STOCK OPTION.** Corporation shall grant to officer incentive and nonstatutory options in the Company's usual form to acquire 150,000 shares of Corporation's Common Stock, vesting in equal monthly installments over a period of three years, and to represent his total option awards for the period of the contract except as may be otherwise determined by the directors and except for a special 25,000 option grant attributable to the Premier, Inc. merger.

4. **CHANGE IN CONTROL OR EMPLOYMENT POSITION.**

4.1 **TERMINATION BY EMPLOYEE ON CHANGE IN CONTROL.** In the event of a Change in Control (as defined herein) during the term of this Agreement, Officer shall be entitled to terminate his employment and receive Termination Benefits. Said termination shall occur immediately upon officer providing notice to Corporation of such termination, which notice shall be given not later than ninety days after officer receives from Corporation notice of Change in Control.

4.2 **TERMINATION BY CORPORATION ON CHANGE IN CONTROL.** In the event of such Change in Control, Corporation shall be entitled to terminate Officer's employment. Upon such termination, officer shall receive Extended Termination Benefits. Said termination shall occur immediately upon Corporation providing notice to officer of such termination, which notice shall be given not later than sixty days after a Change in Control.

4.3 **CHANGE IN EMPLOYMENT POSITION.** If, at any time subsequent to a Change in Control and during the term of this Agreement, Officer is not re-elected to or is removed from office as the chief executive officer of Corporation, or Officer's position as chief executive officer of Corporation is reduced in terms of responsibility of indicia of status (collectively, a "Change of Employment Position") then Officer shall have the option to terminate this Agreement. Such termination, if elected by Officer, shall be effective sixty days after officer has given written notice to Corporation of Officer's intention to terminate. Upon such termination, Officer shall receive Extended Termination Benefits, determined as of the Termination Date rather than the date of Change of Control

4.4 **NOTICE OF CHANGE IN CONTROL.** Corporation shall give written notice of a Change in Control to Officer within five days of such event.

4.5 **DEFINITIONS.** For purposes of this Agreement, the following terms shall have the meanings assigned to them below:

4.5.1 "CHANGE IN CONTROL" shall mean each of the following events:

(i) The acquisition after the date hereof by any person as defined in Section 13(d) or 14(d)(2) of the Securities Exchange Act of the United States of America of more than fifty percent of the issued and outstanding shares of stock of Corporation. A person shall not be deemed to have acquired stock merely because such person has been designated as a fiduciary or because such person has received upon distribution of any trust or estate or otherwise, as a result of the death of a prior stockholder, shares of stock; or

(ii) The merger of Corporation with or into another corporation or consolidation into another corporation, and as a result thereof the stockholders of Corporation receive equity securities having less than fifty percent of the voting power of all securities issued by such corporation; or

(iii) The sale by Corporation of substantially all of the stock, business operations or assets of Corporation to an unrelated person not directly or indirectly controlled by Corporation's stockholders immediately prior to such transfer.

4.5.2 "TERMINATION DATE" shall mean the last day officer is employed by Corporation or its successor.

4.5.3 "TERMINATION BENEFITS" shall mean the amount of salary and bonuses paid to or for the benefit of Officer or otherwise earned by officer in accordance with the provisions of Section 3 hereof during the twelve-month period immediately preceding the Change in Control. In the event that the Change in Control shall occur prior to one year from the date of this Agreement, Termination Benefits shall be the amount which Officer would have received during the initial twelve months of this Agreement. Corporation, or its successor, shall pay the Termination Benefits to Officer for the twelve-month period commencing on the Termination Date. Said amounts, and benefits, shall be paid in the same manner as Officer received such amounts and benefits during employment.

4.5.4 "EXTENDED TERMINATION BENEFITS" shall mean an amount equal to twice the Termination Benefits and shall be payable by Corporation, or its successor, one-half on the Termination Date and the remaining one-half on the first anniversary of the Termination Date.

4.6 **MITIGATION.** Officer shall not be required to mitigate the amount of any payment provided for in this Section by seeking other employment or otherwise, and the amount payable hereunder shall be payable even after he has taken other employment.

5. **NONCOMPETITION.**

During the time Officer is employed by corporation and for any additional

period during which Corporation continues to pay to Officer the full compensation payable under the provisions of this Agreement (but not including Extended Termination Benefits as defined in Section 4.5.4), officer shall not, directly or indirectly, by way of ownership, management or otherwise, whether or not for compensation, either as a consultant, employer, employee, agent, principal, partner, stockholder (other than ownership of less than five percent of the outstanding capital stock of a publicly traded corporation), officer, director or in any other representative or individual capacity, engage in any activity competitive with Corporation or, directly or indirectly, solicit or hire to engage in any such business any person who is then or was within one year prior thereto an employee of Corporation.

6. MISCELLANEOUS.

6.1 CONFIDENTIALITY. Officer recognizes that he now has knowledge of and will hereafter gain further knowledge of confidential information, trade secrets, confidential processes, and confidential "know-how" relating to, or concerned with the past, present or future business, finances, products, services and policies of Corporation (collectively, "Proprietary Information"). Officer agrees that all Proprietary Information shall be kept and treated by officer as confidential both during and after Officer's employment by Corporation, and that Officer will not, directly or indirectly, use, divulge, furnish or make accessible such information to any other person or entity (other than as required in the performance of his services hereunder), except as may be permitted in writing by Corporation's Board of Directors or as to such information: (i) as is within the public domain or comes within the public domain without any breach of this Agreement by Officer; (ii) which is subsequently disclosed to Officer by a third party not bound to keep such information confidential; or (iii) as is known to officer prior to his employment by Corporation and which was not disclosed to officer by Corporation or any affiliate or agent of Corporation.

6.2 WAIVER. The waiver of the breach of any provision of this Agreement shall not operate or be construed as a waiver of any subsequent breach of the same or other provision hereof.

6.3 ENTIRE AGREEMENT; MODIFICATIONS. Except as otherwise provided herein, this Agreement represents the entire understanding among the parties with respect to the subject matter hereof, and this Agreement supersedes any and all prior understandings, agreements, plans and negotiations, whether written or oral, with respect to the subject matter hereof, including without limitation, any understandings, agreements or obligations respecting any past or future compensation, bonuses, reimbursements or other payments to Officer from Corporation. All modifications to the Agreement must be in writing and signed by the party against whom enforcement of such modification is sought.

6.4 NOTICES. All notices and other communications under this Agreement shall be in writing and shall be given by a nationally recognized overnight air courier service or first class mail, certified or registered with return receipt requested, and shall be deemed to have been duly given three days after mailing or one day after delivery to a nationally recognized overnight air courier service to the respective persons named below:

If to Corporation: Advanced Polymer Systems, Inc.
3696 Haven Avenue
Redwood City, California 94063
Attn: Vice President - Finance

If to Officer: John J. Meakem, Jr.
Armonk, N.Y.

Either party may change such party's address for notices by notice duly given pursuant to this Section 6.4.

6.5 GOVERNING LAW; ARBITRATION. This Agreement shall be governed by and construed in accordance with the laws of the State of California applicable to contracts entered into and wholly to be performed within the State of California by California residents. All disputes, controversies or claims arising out of or related to: (i) the interpretation or enforcement of this Agreement; or (ii) any breach, termination or claim or invalidity of this Agreement shall be settled finally and without resort to any legal proceedings (except for the enforcement of the arbitration award) by arbitration conducted in accordance with the provisions of this Section 6.5. Notwithstanding the foregoing, the remedy at law for any breach of the provisions of this Section 6.5 is acknowledged by the parties to be inadequate, and an aggrieved party seeking relief or remedies for such a breach shall have the right and is hereby granted the privilege, in addition to all other remedies at law or in equity, to temporary or permanent injunctive relief without the necessity or providing actual damage. Arbitrations under this Section 6.5 shall be conducted before a single arbitrator in accordance with the Commercial Arbitration Rules of the American Arbitration Association in San Francisco, California. All decisions of the arbitrator resolving disputes, controversies, or claims shall be final and binding upon the parties both as to law and to fact and shall be enforceable at law or in equity by any court of competent jurisdiction. Once an issue has been arbitrated pursuant hereto, the decision of the arbitrator shall be RES JUDICATA with respect to such issue. The parties shall take whatever steps may be necessary to have the decision of the arbitrator carried out. The parties shall cooperate with each other in causing the arbitration to be held in as efficient and expeditious a manner as

practicable and in this connection to furnish such documents and make available themselves and such personnel as the arbitrator may request. All fees and expenses attributable to the conduct of arbitration pursuant to this Section 6.5 shall be shared equally by the parties to the arbitration; PROVIDED, HOWEVER, that each party to the arbitration shall bear its own expenses (including but not limited to legal expenses). Officer agrees that service upon Officer in any such action may be made by first class mail, certified or registered, in the manner provided for delivery of notices in Section 6.4.

6.6 SEVERABILITY. Should a court or other body of competent jurisdiction determine that any provision of this Agreement is excessive in scope or otherwise invalid or unenforceable, such provision shall be adjusted rather than voided, if possible, so that it is enforceable to the maximum extent possible, and all other provisions of this Agreement shall be deemed valid and enforceable to the extent possible.

6.7 ASSIGNMENT. This Agreement shall be binding upon and inure to the benefit of the executors, administrators, heirs, successors and assigns of the parties; provided, however, that except as herein expressly provided, this Agreement shall not be assignable either by Corporation (except to an affiliate of Corporation) or by Officer. If this Agreement is assigned by Corporation, then Corporation shall remain primarily liable to Officer for the payment of all amounts due officer from Corporation under this Agreement.

6.8 COUNTERPARTS. This Agreement may be executed in one or more counterparts, all of which taken together shall constitute one and the same Agreement.

6.9 WITHHOLDINGS. All compensation and benefits to Officer hereunder shall be reduced by all federal, state, local and other withholdings and similar taxes and payments required by applicable law.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

Corporation:

ADVANCED POLYMER SYSTEMS, INC.

By: /S/ Michael O'Connell

Title: Chief Financial Officer

Officer:

/S/ John J. Meakem, Jr.

AMENDMENT

This Amendment to the Employment Agreement originally effective May 1, 1993, by and between Advanced Polymer Systems, Inc. ("Corporation") and John J. Meakem ("officer") is entered into effective May 1, 1995.

W I T N E S S E T H:

The parties agree as follows:

1. Section 2.2 of the Employment Agreement entitled "Term of Employment" is

hereby amended to read in its entirety as follows:

"2.2 TERM OF EMPLOYMENT. Unless terminated earlier pursuant to this Section 2, the term of employment of Officer by Corporation shall be

for

a period of three years from May 1, 1995. Thereafter, unless either party shall give written notice to the other party not later than March 1st of each year of its intention not to automatically extend this Agreement for an additional year, then the term of this Agreement shall be automatically extended for an additional year. For example, if notice is not given by March 1, 1996, then the term of this Agreement shall be extended through April 30, 1999.

2. The parties confirm that, as of the date of this Amendment, Officer's salary has been increased to \$315,000 per year.

3. In all other respects the provisions of the Employment Agreement are hereby confirmed.

In witness whereof, the parties have executed this Amendment.

/S/ John J. Meakem, Jr.

John J. Meakem

ADVANCED POLYMER SYSTEMS, INC.

By: /S/ Michael O'Connell

AMENDMENT

This Amendment to the Employment Agreement originally effective May 1, 1993, by and between Advanced Polymer Systems, Inc. ("Corporation") and John J. Meakem, Jr. ("officer") is entered into effective May 1, 1996.

W I T N E S E T H:

The parties agree as follows:

1. Section 2.2. of the Employment Agreement entitled "Term of Employment" is hereby amended to read in its entirety as follows:

"2.2 Term of Employment. Unless terminated earlier pursuant to this Section 2, the term of employment of Officer by Corporation shall be for a period of three years from May 1, 1996. Thereafter, unless either party shall give written notice to the other party not later than March 1st of each year of its intention not to automatically extend this Agreement for an additional year, then the term of the Agreement shall be automatically extended for an additional year. For example, if notice is not given by March 1, 1997, then the term of this Agreement shall be extended through April 30, 2000."

2. The parties confirm that, as of the date of this Amendment, Officer's salary has been increased to \$330,000 per year.
3. In all other respects the provisions of the Employment Agreement are hereby confirmed.

In witness whereof, the parties have executed this Amendment.

/S/ John J. Meakem, Jr.

John J. Meakem, Jr.

ADVANCED POLYMER SYSTEMS, INC.

By: /S/ Michael O'Connell

AMENDMENT TO EMPLOYMENT AGREEMENT

This Amendment to Employment Agreement (this "Amendment") is made and entered into effective April 26, 1999 by and between ADVANCED POLYMER SYSTEMS, INC., a Delaware corporation ("Corporation"), and JOHN J. MEAKEM ("Officer").

R E C I T A L S

- A. Corporation and Meakem are parties to an Employment Agreement dated May 1, 1993 providing for the Company's employment of Meakem as its President and Chief Executive Officer (as heretofore amended, the "Agreement"); and
- B. The Board of Directors of Corporation has approved the following amendment to the Agreement and Meakem agrees to such amendment.

AGREEMENT

THE PARTIES AGREE that Section 4.5.1 of the Agreement ("Section 4.5.1") is hereby amended as follows and in all other respects the Agreement shall remain in full force and effect in accordance with its terms, as hereby amended.

- (1) The period at the end of clause (iii) of Section 4.5.1 shall be replaced with a semi-colon followed by the addition of the word "or"; and
- (2) a new clause (iv) shall be added to Section 4.5.1, which clause (iv) shall read in its entirety as follows:

"(iv) The individuals (the Initial Directors") who, as of the date of this Agreement, are members of the Board of Directors of the Corporation (the "Board") cease for any reason to constitute at least a majority of the members of the Board; PROVIDED, HOWEVER, that if the election, or nomination for election by the Corporation's stockholders, of any new director was approved by a vote of at least a majority of either (x) the Initial Directors or (y) the aggregate of the Initial Directors and any director referred to in this proviso, such new director shall be considered an Initial Director for purposes of this Agreement; PROVIDED, FURTHER, HOWEVER, that no individual shall be considered an Initial Director if such individual initially assumed office as a director as a result of either an actual or threatened election contest (an "Election Contest") regulated by Rule 14a-11 promulgated under the Securities Exchange Act of 1934 (or any successor rule or regulation) or any other actual or threatened solicitation of proxies or consents by or on behalf of any person other than a majority of the Initial Directors (a "Proxy Contest") including (without limitation) by reason of any agreement intended to avoid or settle any Election Contest or Proxy Contest.

IN WITNESS WHEREOF, the parties hereto have executed this Amendment as of the day and year first above written.

CORPORATION

ADVANCED POLYMER SYSTEMS, INC.

By: /S/ John J. Meakem, Jr.

Title: Chairman, President, CEO

OFFICER

/S/ Michael O'Connell

FINOVA Capital Corporation
10 Waterside Drive
Farmington, CT 06032-3065
(860)676-1818

MASTER LOAN AND SECURITY AGREEMENT

Master Loan and Security Agreement No. S4330 Dated March 29, 1999

FINOVA Capital Corporation ("we," "us" or "FINOVA"), having its principal place of business at 1850 North Central Avenue, Phoenix, Arizona 85004, is willing to make a loan (the "Loan") to Advanced Polymer Systems, Inc., a Delaware corporation, APS Analytical Standards, Inc., a California corporation, Premier, Inc., a Connecticut corporation, and APS Joint Venture Corp., a Delaware corporation (jointly and severally, "you" or "Borrower"), each having its principal place of business at 123 Saginaw Drive, Redwood City, California 94063, under the terms and conditions contained in this Master Loan and Security Agreement (this "Master Agreement"). The Loan will be secured by the collateral (the "Collateral") described in the Schedule to the Note hereinafter defined ("Schedule"). The Collateral also includes any replacement parts, additions and accessories that you may add to the Collateral, as well as any proceeds of sale, lease or rental of the Collateral. We may treat any Schedule as a separate loan and security agreement containing all of the provisions of this Loan and Security Agreement.

1. THE CREDIT

We will make the Loan in one advance (the "Advance"), which shall be evidenced by the Schedule. We will only make the Loan to you if all the conditions in this Master Agreement have been met to our satisfaction. We will rely on your representations and warranties, contained in this Master Agreement, in making the Loan. The terms of this Agreement will each apply to the Loan.

- USE OF PROCEEDS. You will use the proceeds of the Loan solely to refinance your purchases of the Equipment (as defined in the Schedule) (which Equipment shall be satisfactory to us in our sole discretion) and for general corporate purposes. You will properly install the Collateral at your expense at your premises at 301 Laser Lane, Lafayette, Louisiana (the "Premises"), as indicated in the Schedule. Because you have already paid for the Collateral, we will pay the Loan proceeds to you or to another person that you may designate in writing.

- NOTE. Your obligation to repay the Loan and to pay interest on the Loan will be evidenced by a promissory note (the "Note"). The Note will be dated the date of the Schedule.

- TERM. The Term of the Schedule (and the Loan) begins upon the date that we make the Loan to you (the "Closing Date"). The Term continues until you fully perform all of your obligations under this Agreement, the Schedule and the related Note.

- LOAN ACCOUNT. We will keep a loan account on our books and records (which are computerized) for the Loan. We will record all payments of principal and interest in the loan account. Unless the entries in the loan account are clearly in error, the loan account will definitively indicate the outstanding principal balance and accrued interest on the Loan. We may send you loan account statements from time to time or upon your request.

- PAYMENTS. The scheduled loan payments (the "Payments") are indicated on the Schedule. The Payments are payable periodically as specified on the Schedule from time to time (for example, monthly). The Schedule also indicates that the Payments are payable "in advance". You agree that you owe us the total of all of these Payments over the Term of the Schedule.

- FIRST PAYMENT. The first Payment is due at the beginning of the Term or at a later date that we agree to in writing. Subsequent Payments are due on the thirtieth day of each successive period until you pay us in full all of the Payments and any other charges or expenses you owe us.

- INTEREST. Prior to maturity of the Schedule, you will pay us interest on the Schedule at the Interest Rate indicated in the Schedule. "Maturity" means the scheduled maturity or any earlier date on which we accelerate the Loan. The Payment amount indicated in the Schedule includes interest at this Interest Rate. Interest is calculated in advance using a year of 360 days

with twelve months of 30 days.

- DEFAULT INTEREST RATE. After Maturity of the Loan you will pay us interest at a rate of four (4%) percent per year above the Interest Rate. This is referred to as the "Default Rate."

- INTERIM PAYMENT. If the Loan is made on a day other than the thirtieth or thirty-first day of a period, you will also pay us an interim payment of interest, only, at the interest rate set forth on the Schedule, payable on the first Payment date. The interim payment will be for the period from the beginning of the Term until the twenty-ninth day of the period in which the Loan is made, unless the Loan is made on the thirty-first day of a period. If the Loan is made on the thirty-first day of a period, the interim payment will be for the period from the beginning of the Term through and including the twenty-ninth day of the next following period. The interim payment of interest will be calculated the same way as the regular installments of interest are calculated, but pro rata on a daily basis for the number of days for which the interim payment is due.

- USURY. You and we intend to obey the law. If the Interest Rate charged would exceed the maximum legal rate, you will only have to pay the maximum legal rate. You do not have to pay any excess interest over and above the maximum legal rate of interest. However, if it later becomes legal for you to pay all or part of any excess interest, you will then pay it to us upon our request.

- PAYMENT DETAILS. You will make all payments due under this Master Agreement by 12:00 P.M., Connecticut time, on the day they are due. You will make all payments in US Dollars (US\$) in immediately available funds. We do not have to make or give "presentment, demand, protest or notice" to get paid. You waive "presentment, demand, protest and notice."

- APPLICATION OF PAYMENTS. Each payment under this Master Agreement is to be applied in the following order: first, to any fees, costs, expenses and charges you may owe us; second, to any interest due; and third to the principal balance.

- PREPAYMENT. You may prepay the Loan, in whole and not in part, but only as specifically permitted by Exhibit A to this Agreement. You will give us at least 30 days advance written notice of prepayment. You will pay us the prepayment premium indicated in the Schedule(s). You will also pay us all accrued and unpaid interest through the date of prepayment, as well as all outstanding fees, costs, expenses and charges then due. Of course, you will also pay the entire outstanding principal balance of the Loan. Once you give us a notice of prepayment, that notice is final and irrevocable. If we accelerate the Loan following an Event of Default, you will also owe us a prepayment premium calculated as if the Loan were prepaid on the date of acceleration. If no prepayment is permitted, the premium due upon acceleration will be five (5%) percent of the outstanding principal balance.

- YOUR OBLIGATION TO PAY US ALL PAYMENTS IS ABSOLUTE AND UNCONDITIONAL. YOU ARE NOT EXCUSED FROM MAKING THE PAYMENTS, IN FULL, FOR ANY REASON. YOU AGREE THAT YOU HAVE NO DEFENSE FOR FAILURE TO MAKE THE PAYMENTS AND YOU WILL NOT MAKE ANY COUNTERCLAIMS OR SETOFFS TO AVOID MAKING THE PAYMENTS.

2. SECURITY INTEREST

- You grant us a first and only lien on and security interest in the Collateral. The Collateral secures the full and timely payment and performance of all of your now existing or hereafter arising indebtedness, liabilities and obligations to us, whether under this Master Agreement, the Schedule, the Note and any other agreement, loan or lease that you may from time to time have with us, or otherwise (collectively, the "Obligations"). You also grant us a security interest in any additional collateral identified in any Schedule. Any additional collateral is considered to be "Collateral" and it secures all of the Obligations.

- If we request, you will put labels supplied by us stating "PROPERTY SUBJECT TO A SECURITY INTEREST HELD BY FINOVA CAPITAL CORPORATION" on the Collateral where they are clearly visible.

- You give us permission to add to this Master Agreement or any Schedule the serial numbers and other information about the Collateral.

- You give us permission to file this Master Agreement or a Uniform Commercial Code financing statement, at your expense, in order to perfect our security interest in the Collateral. You also give us permission to sign your name on the Uniform Commercial Code financing statements where this is permitted by law.

- You will pay our cost to do searches for other filings or judgments

against you or your affiliates. You will also pay any filing, recording or stamp fees or taxes resulting from filing this Agreement or a Uniform Commercial Code financing statement. You will also pay our fees in effect from time to time for documentation, administration and termination of this Master Agreement.

- At your expense, you will defend our first priority security interest in the Collateral against, and keep the Collateral free of, any legal process, liens, other security interests, attachments, levies and executions. You will give us immediate written notice of any legal process, liens, attachments, levies or executions, and you will indemnify us against any loss that results to us from these causes.

- You will notify us at least 30 days before you change the address of your principal executive office, principal place of business, place where you keep your books and records or place where your Receivables (as defined in the Schedule) are generated. Your principal executive office, principal place of business, place where you keep your books and records and the place where all of your Receivables are generated is 123 Saginaw Drive, Redwood City, California 94063.

- You will promptly sign and return additional documents that we may reasonably request in order to protect our first priority security interest in the Collateral.

- The Collateral (other than the Premises) is personal property and will remain personal property. You will not incorporate it into real estate and will not do anything that will cause the Collateral to become part of real estate or a fixture.

3. CONDITIONS OF LENDING

- See our Commitment Letter to you dated February 26, 1999 (the "Commitment Letter"), which you and we consider to be a part of this Master Agreement. The terms and conditions of the Commitment Letter continue following the making of the Loan. However, if there is a conflict between the terms and conditions of this Master Agreement, the Schedule or the Note and the terms and conditions of the Commitment Letter, then you and we agree that the terms and conditions of this Agreement, the Schedule and the Note control over the Commitment Letter terms and conditions.

- Before we disburse any proceeds of the Advance, we also require the following:

* That no payment is past due to us under any other agreement, loan or lease that you or any guarantor have with us.

* That you are complying with all terms of this Agreement, the Schedule and the Note.

* That we have received all the documents we requested, including the signed Schedule, Note, Delivery and Acceptance Certificate, and a mortgage in form and substance satisfactory to us (the "Mortgage") covering the Premises.

* That there has been no material adverse change in your financial condition, business, operations or prospects, from the financial condition that you disclosed to us in your application for credit.

4. REPRESENTATIONS AND WARRANTIES

You represent and warrant to us as follows:

- All financial information and other information that you have given us is true and complete. You have not failed to tell us anything that would make the financial information misleading. There has been no material adverse change in your financial condition, business, operations or prospects, from the financial condition that you disclosed to us in your application for credit.

- You have supplied us with information about the Collateral.

- You have complied with all "environmental laws" and will continue to comply with all "environmental laws." No "hazardous substances" are used, generated, treated, stored or disposed of by you or at your properties except in compliance with all environmental laws. "Environmental laws" mean all federal, state or local environmental laws and regulations, including the following laws: CERCLA, RCRA, Hazardous Materials Transport Act and The Federal Water Pollution Control Act. "Hazardous substances" means all hazardous or toxic wastes, materials or substances, as defined in the environmental laws, as well as oil, flammable substances, asbestos that is or

could become friable, urea formaldehyde insulation, polychlorinated biphenyls and radon gas.

- You have taken all action necessary including but not limited to due inquiry and due diligence to assure that there will be no material adverse change to your business by reason of the advent of the year 2000, including without limitation that all computer-based systems, embedded microchips and other processing capabilities effectively recognize and process dates after April 1, 1999.

5. COVENANTS

You agree to do the following things (or not to do the following things if so stated) until full payment of all amounts due to us under this Agreement, the Schedule and the Note:

CARE, USE, LOCATION, TRANSFER AND ALTERATION OF THE COLLATERAL

- You will make sure that the Collateral is maintained in good operating condition, and that it is serviced, repaired and overhauled when this is necessary to keep the Collateral in good operating condition. All maintenance must be done according to the Supplier's or Manufacturer's requirements or recommendations. All maintenance must also comply with any legal or regulatory requirements.

- You will maintain service logs for the Collateral and permit us to inspect the Collateral, the service logs and service reports. You give us permission to make copies of the service logs and service reports.

- We will give you prior notice if we, or our agent, want to inspect the Collateral or the service logs or service reports. We may inspect it during regular business hours. You will pay our travel, meals and lodging costs to inspect the Collateral, but only for one inspection per year. If we find during an inspection that you are not complying with this Master Agreement, you will pay our travel, meals and lodging costs, our salary costs, and the costs and fees of our agents for reinspection. You will promptly cure any problems with the Collateral that are discovered during our inspection.

- You will use the Collateral only for business purposes. You will obey all legal and regulatory requirements in your material use of the Collateral.

- You will make all additions, modifications and improvements to the Collateral that are required by law or government regulation. Otherwise, you will not alter the Collateral without our written permission. You will replace all worn, lost, stolen or destroyed parts of the Collateral with replacement parts that are as good or better than the original parts. The new parts will become subject to our security interest upon replacement.

- You will not remove the Collateral from the Premises indicated in the Schedule without our written permission.

- You have and will have good and merchantable title to all of the Collateral.

- You will not convey, assign, sell, mortgage, transfer, encumber, pledge, hypothecate, grant a security interest in, grant options with respect to, lease or otherwise dispose of all or any part of any interest whatsoever in or to any or all of the Collateral, including, without limitation, the Premises, or any interest therein, whether to a third party or to another Borrower.

YEAR 2000 COMPLIANT

- You shall take all action necessary including but not limited to due inquiry and due diligence with critical business partners to assure that there will be no material adverse change to your business by reason of the advent of the year 2000, including without limitation that all computer-based systems, embedded microchips and other processing capabilities effectively recognize and process dates after April 1, 1999. At our request, you shall provide to us assurance reasonably acceptable to us that your computer-based systems, embedded microchips and other processing capabilities are year 2000 compatible.

RISK OF LOSS

- You have the complete risk of loss or damage to the Collateral. Loss or damage to the Collateral will not relieve you of your obligation to make the Payments.

- If any Collateral is lost or damaged, you have two choices (although if you are in default under this Master Agreement, we and not you will have the two choices). The choices are:

(1) Repair or replace the damaged or lost Collateral so that, once again, the Collateral is in good operating condition and we have a perfected first priority security interest in it.

(2) Pay us the present value (as of the date of payment) of the remaining Payments. We will calculate the present value using a discount rate of five (5%) percent per year. Once you have paid us this amount and any other amount that you may owe us, we will release our security interest in the damaged or lost Collateral and you (or your insurer) may keep the Collateral for salvage purposes, on an "AS IS, WHERE IS" basis.

INSURANCE

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- Until you have made all Payments to us under this Master Agreement, the Schedule and the Note, you will keep the Collateral insured. The amount of insurance, the coverage, and the insurance company must be acceptable to us.

- If you do not provide us with written evidence of insurance that is acceptable to us, we may buy the insurance ourselves, at your expense. You will promptly pay us the cost of this insurance. We have no obligation to purchase any insurance. Any insurance that we purchase will be our insurance, and not yours.

- Insurance proceeds may be used to repair or replace damaged or lost Collateral or to pay us the present value of the Payments, as provided above.

- You appoint us as your "attorney-in-fact" to make claims under the insurance policies, to receive payments under the insurance policies, and to endorse your name on all documents, checks or drafts relating to insurance claims for Collateral.

TAXES

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- You will pay all sales, use, excise, stamp, documentary and ad valorem taxes, license, recording and registration fees, assessments, fines, penalties and similar charges imposed on the ownership, possession, use, lease or rental of the equipment or on the Loan.

- You will pay all taxes (other than our federal or state net income taxes) imposed on you or on us regarding the Payments.

- You will reimburse us for any of these taxes that we pay or advance.

- You will file and pay for any personal property taxes on the Collateral.

FINANCIAL INFORMATION

- - - - -

- During the Term you will promptly provide us with copies of all current, quarterly and annual reports and all proxy (or information) statements you file with the Securities and Exchange Commission (SEC).

- You will also provide us with the following financial statements:

* Quarterly balance sheet and statements of earnings and cash flow - within 45 days after the end of your first three fiscal quarters in each fiscal year. These will be certified by the chief financial officer.

* Annual balance sheet and statements of earnings and cash flow - within 90 days after the end of each fiscal year. These will be audited by independent auditors acceptable to FINOVA. Their audit report must be unqualified.

* All financial statements will be prepared according to generally accepted accounting principles, consistently applied. All financial statements and SEC filings that you provide us will be true and complete. They will not fail to tell us anything that would make them misleading.

* At the same time you deliver the annual and quarterly financial statements described above, you will also provide us with a certificate of your chief financial officer stating that no default exists, or, if he cannot certify this because a default does exist, he must specify in reasonable detail the nature of the default.

* So long as we have a security interest in the Receivables (as defined in the Schedule), you shall deliver to us, monthly, not later than the 10th day

of each month, an accounts receivable aging by invoice, which shall be in form satisfactory to us.

6. DEFAULTS

You are in default if any of the following happens:

- You do not pay us, within ten (10) days of its due date, any Payment or other payment that you owe us under this Master Agreement, the Schedule or the Note or that you owe under any other agreement, loan or lease that you have with us.
- Any of the financial information that you give us is not true and complete, or you fail to tell us anything that would make the financial information not misleading.
- You do something you are not permitted to do, or you fail to do anything that is required of you or you otherwise breach any term of or default under this Master Agreement, the Schedule, the Note, the Mortgage or any other lease, loan or other financial arrangement that you have with us, and the same is not cured within thirty (30) days after your receipt of written notice from us of such default.
- An event of default occurs under any other lease, loan or obligation of yours that exceeds \$25,000.
- You file bankruptcy, or involuntary bankruptcy is filed against you.
- You are subject to any other insolvency proceeding other than bankruptcy (for example, a receivership action or an assignment for the benefit of creditors).
- Without our permission, you sell all or a substantial part of your assets, merge or consolidate, or a majority of your voting stock or interests is transferred or encumbered.
- There is a material adverse change in your financial condition, business, operations or prospects, from the condition that you disclosed to us.

REMEDIES, DEFAULT INTEREST, LATE FEES

If you are in default we may exercise one or more of our "remedies." Each of our remedies is independent. We may exercise any of our remedies, all of our remedies or none of our remedies. We may exercise them in any order we choose. Our exercise of any remedy will not prevent us from exercising any other remedy or be an "election of remedies." If we do not exercise a remedy, or if we delay in exercising a remedy, this does not mean that we are forgiving your default or that we are giving up our right to exercise the remedy. Our remedies allow us to do one or more of the following:

- "Accelerate" the Loan balance under the Note. This means that we may require you to immediately pay us all Payments for the entire Term for the Schedule.
- Require you to immediately pay us all amounts that you are required to pay us for the entire Term of any other agreements, loans or leases that you have with us.
- Sue you for all Payments and other amounts you owe us plus the Prepayment Premium (see Section 1 above).
- We will have all of our rights and remedies under this Master Agreement, the Note, the Schedule, the Mortgage and all agreements, instruments and documents executed in connection herewith and therewith and all of our rights under applicable law, whether as a secured party or otherwise.
- Require you at your expense to assemble the Collateral at a location we request in the United States of America.
- Remove and repossess the Collateral from where it is located, without demand or notice, or make the Collateral inoperable. We have your permission to remove any physical obstructions to removal of the Collateral. We may also disconnect and separate all Collateral from other property. No court order, court hearing or "legal process" will be required for us to repossess the Collateral. You will not be entitled to any damages resulting from removal or repossession of the Collateral. We may use, ship, store, repair or lease any Collateral that we repossess. We may sell any repossessed Collateral at private or public sale. You give us permission to show the Collateral to buyers at your location free of charge during normal business hours. If we do this, we do not have to remove the Collateral from your

location. If we repossess the Collateral and sell it, we will give you credit for the net sale price, after subtracting our costs of repossessing and selling the Collateral. If we rent the Collateral to somebody else, we will give you credit for the net rent received, after subtracting our costs of repossessing and renting the Collateral, but the credit will be discounted to present value using a discount rate equal to the Default Rate. The credit will be applied against what you owe us under this Master Agreement, the Schedule, the Note and any other agreements, loans or leases that you have with us. If the credit exceeds the amount you owe under this Master Agreement, the Schedule, the Note and any other agreements, loans or leases that you have with us, we will refund the amount of the excess to you.

- So long as we have a lien on and security interest in the Receivables (as defined in the Schedule), we may deliver written notices to all of your account debtors (including, without limitation, Ortho Pharmaceutical Corporation) instructing them to pay all Receivables directly to us. In furtherance of this right, you appoint us and our designees as your attorney, with the power to endorse your name on any checks, notes, acceptances, money orders or other forms of payment or security that come into our possession; to sign your name on any invoice or bill of lading relating to any Receivable, on drafts against customers, on assignments of Receivables, on notices of assignment, financing statements and other public records, on verifications of accounts and on notices to customers or account debtors; to send requests for verification of Receivables to customers or account debtors, to notify the post office authorities to change the address for delivery of your mail to an address designated by us and to open and dispose of all mail addressed to you; and to do all other things we deem necessary or desirable to carry out the terms of this Master Agreement. You hereby ratify and approve all acts of such attorney. Neither we nor our designees shall be liable for any acts or omissions nor for any error of judgment or mistake of fact or law while acting as your attorney. This power, being coupled with an interest, is irrevocable until the Obligations have been fully satisfied.

- Return conditions: Following an Event of Default, at our request you will return the Collateral, freight and insurance prepaid by you, to us at a location we request in the United States of America. It will be returned in good operating condition, as required by Section 5 above. The Collateral will not be subject to any liens when it is returned. All advertising insignia will be removed and the finish will be painted or blended so that nobody can see that advertising insignia used to be there.

* You will pack or crate the Collateral for shipping in the original containers, or comparable ones. You will do this carefully and follow all recommendations of the Supplier and the Manufacturer as to packing or crating.

* You will also return to us the plans, specifications, operating manuals, software documentation, discs, warranties and other documents furnished by the Manufacturer or Supplier. You will also return to us all service logs and service reports, as well as all written materials that you may have concerning the maintenance and operation of the Collateral.

* At our request, you will provide us with up to 60 days free storage of the Collateral at your location, and will let us (or our agent) have access to the Collateral in order to inspect it and sell it.

* You will pay us what it costs us to repair the Collateral if you do not return it in the required condition.

You will also pay us for the following:

- All our expenses of enforcing our remedies. This includes all our expenses to repossess, store, ship, repair and sell the Collateral.

- Our reasonable attorney's fees and expenses.

- Default interest on everything you owe us from the date of your default to the date on which we are paid in full at the Default Rate.

You realize that the damages we could suffer as a result of your default are very uncertain. This is why we have agreed with you in advance on the Default Rate to be used in calculating the payments you will owe us if you default. You agree that, for these reasons, the payments you will owe us if you default are "agreed" or "liquidated" damages. You understand that these payments are not "penalties" or "forfeitures."

LATE FEES

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You will pay us a late fee whenever you pay any amount that you owe us more than ten (10) days after it is due. You will pay the late fee within one month after the late Payment was originally due. The late fee will be ten

(10%) percent of the late Payment. If this exceeds the highest legal amount we can charge you, you will only be required to pay the highest legal amount. The late fee is intended to reimburse us for our collection costs that are caused by late Payment. It is charged in addition to all other amounts you are required to pay us, including Default Interest.

7. EXPENSES AND INDEMNITIES

PERFORMING YOUR OBLIGATIONS IF YOU DO NOT

If you do not perform one or more of your obligations under this Master Agreement or Schedule or Note, we may perform it for you. We will notify you in writing at least ten (10) days before we do this. We do not have to perform any of your obligations for you. If we do choose to perform them, you will pay us all of our expenses to perform the obligations. You will also reimburse us for any money that we advance to perform your obligations, together with interest at the Default Rate on that amount. These will be additional "Payments" that you will owe us and you will pay them at the same time that your next Payment is due.

- You will indemnify us, defend us and hold us harmless for any and all claims, expenses and attorney's fees concerning or arising from the Collateral, this Agreement, or any Schedule or Note, or your breach of any representation or warranty. It includes any claims concerning the manufacture, selection, delivery, possession, use, operation or return of the Collateral.

- This obligation of yours to indemnify us continues even after the Term is over.

8. MISCELLANEOUS

WE MAY ASSIGN OR GRANT A SECURITY INTEREST IN THIS AGREEMENT, SCHEDULE, NOTE OR ANY PAYMENTS WITHOUT YOUR PERMISSION. THE PERSON TO WHOM WE ASSIGN IS CALLED THE "ASSIGNEE." THE ASSIGNEE WILL NOT HAVE ANY OF OUR OBLIGATIONS UNDER THIS MASTER AGREEMENT. YOU WILL NOT BE ABLE TO RAISE ANY DEFENSE, COUNTERCLAIM OR OFFSET AGAINST THE ASSIGNEE.

UNLESS YOU RECEIVE OUR WRITTEN PERMISSION, YOU MAY NOT ASSIGN OR TRANSFER YOUR RIGHTS UNDER THIS MASTER AGREEMENT OR ANY SCHEDULE. YOU ALSO ARE NOT ALLOWED TO LEASE OR RENT THE COLLATERAL OR LET ANYBODY ELSE USE IT UNLESS WE GIVE YOU OUR WRITTEN PERMISSION.

WE DID NOT MANUFACTURE OR SUPPLY THE COLLATERAL. WE ARE NOT A DEALER IN THE COLLATERAL. INSTEAD, YOU CHOSE THE COLLATERAL.

WE DO NOT MAKE ANY WARRANTY AS TO THE COLLATERAL. WE DO NOT MAKE ANY WARRANTY AS TO "MERCHANTABILITY" OR "SUITABILITY" OR "FITNESS FOR A PARTICULAR PURPOSE" OR "NONINFRINGEMENT" OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT.

WE WILL NOT BE RESPONSIBLE FOR ANY LOSS, DAMAGE, OR INJURY TO YOU OR ANYBODY ELSE AS A RESULT OF ANY DEFECTS, HIDDEN OR OTHERWISE, IN THE COLLATERAL UNDER "STRICT LIABILITY" LAWS OR ANY OTHER LAWS.

WE WILL NOT BE RESPONSIBLE FOR ANY INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR GOODWILL.

If the Collateral is unsatisfactory, you will continue to pay us all Payments and other amounts you are required to pay us. You must seek repair or replacement of the equipment solely from the Manufacturer or Supplier and not from us. Neither the Manufacturer nor the Supplier is our "agent," so they cannot speak for us and they are not allowed to make any changes in this Master Agreement or any Schedule or Note, or give up any of our rights.

ACCEPTANCE BY FINOVA, GOVERNING LAW, JURISDICTION, VENUE, SERVICE

OF PROCESS, WAIVER OF JURY TRIAL.

THIS MASTER AGREEMENT WILL ONLY BE BINDING WHEN WE HAVE ACCEPTED IT IN WRITING.

THIS MASTER AGREEMENT IS GOVERNED BY THE SUBSTANTIVE LAWS OF THE STATE OF ARIZONA (NOT INCLUDING THE "CHOICE OF LAW" DOCTRINE), THE STATE IN WHICH OUR OFFICE IS LOCATED IN WHICH FINAL APPROVAL OF THE TERMS OR CONDITIONS OF THIS MASTER AGREEMENT OCCURRED AND FROM WHICH DISBURSEMENT OF THE LOAN PROCEEDS WILL BE ORDERED. HOWEVER, IF THIS MASTER AGREEMENT IS UNENFORCEABLE UNDER ARIZONA LAW, IT WILL INSTEAD BE GOVERNED BY THE LAWS OF THE STATE IN WHICH

THE COLLATERAL IS LOCATED.

YOU MAY ONLY SUE US IN A FEDERAL OR STATE COURT THAT IS LOCATED IN MARICOPA COUNTY, ARIZONA. THIS APPLIES TO ALL LAWSUITS UNDER ALL LEGAL THEORIES, INCLUDING CONTRACT, TORT AND STRICT LIABILITY. YOU CONSENT TO THE PERSONAL JURISDICTION OF THESE ARIZONA COURTS. YOU WILL NOT CLAIM THAT MARICOPA COUNTY, ARIZONA, IS AN "INCONVENIENT FORUM" OR THAT IT IS NOT A PROPER "VENUE."

WE MAY SUE YOU IN ANY COURT THAT HAS JURISDICTION. WE MAY SERVE YOU WITH PROCESS IN A LAWSUIT BY CERTIFIED MAIL, RETURN RECEIPT REQUESTED, TO YOUR ADDRESS INDICATED AFTER YOUR SIGNATURE BELOW.

YOU AND WE EACH WAIVE ANY RIGHT YOU OR WE MAY HAVE TO A JURY TRIAL IN ANY LAWSUIT BETWEEN YOU AND US.

NOTICES.

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Your address for notices is your address set forth below your name on the signature page of this Master Agreement. We may give you written notice in person, by mail, by overnight delivery service, or by fax. Notice will be sent to your address below your signature. Mail notice will be effective three (3) days after we mail it with prepaid postage to the right address. Overnight delivery notice requires a receipt and tracking number. Fax notice requires a receipt from the sending machine showing that it has been sent to your fax number and received.

Our address for notices is our address set forth below our name on the signature page of this Master Agreement, with attention to Linda Moschitto, Director, Contract Administration. You will also give copies of all notices to us to our principal place of business at the address set forth in the opening paragraph of this Master Agreement, with attention to Vice President, Law Department. You may give us notice the same way that we may give you notice.

GENERAL.

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This Master Agreement benefits our successors and assigns. This Master Agreement benefits only those successors and assigns of yours that we have approved in writing.

This Master Agreement binds your successors and assigns. This Master Agreement binds only those successors and assigns of ours that clearly assume our obligations in writing.

TIME IS OF THE ESSENCE OF THIS MASTER AGREEMENT

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This Master Agreement, all of the Schedules and the Note and the Commitment Letter are together the entire agreement between you and us concerning the Collateral.

Only an employee of FINOVA who is authorized by corporate resolution or policy may modify or amend this Loan or any Schedule or Note on our behalf, and this must be in writing. Only he or she may give up any of our rights, and this must be in writing. If more than one person is the Borrower under this Agreement, then each of you is jointly and severally liable for your obligations under this Master Agreement.

This Master Agreement is only for your benefit and for our benefit, as well as our successors and assigns. It is not intended to benefit any other person.

If any provision in this Master Agreement is unenforceable, then that provision must be deleted. Only unenforceable provisions are to be deleted. The rest of this Master Loan Agreement will remain as written.

PUBLICITY.

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We may make press releases and publish a tombstone announcing this transaction and its total amount. You may not publicize this transaction in any way without our prior written consent.

JOINT AND SEVERAL LIABILITY.

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All references to "Borrower" shall mean each of Advanced Polymer Systems, Inc., APS Analytical Standards, Inc., Premier, Inc, and APS Joint Venture Corp., jointly and severally, individually and collectively, and the

successors and assigns of each.

Advanced Polymer Systems, Inc., APS Analytical Standards, Inc., Premier, Inc., and APS Joint Venture Corp. acknowledge and confirm that the indebtedness, liabilities and obligations of each of them under this Master Agreement, the Note, the Mortgage and the other agreements, instruments and documents executed in connection herewith, or otherwise, are and shall be joint and several.

LENDER:

FINOVA CAPITAL CORPORATION
10 Waterside Drive
Farmington, CT 06032-3065
Fax Number: (860) 676-1814

BORROWER:

ADVANCED POLYMER SYSTEMS, INC.
123 Saginaw Drive
Redwood City, California 94063
Fax Number: (650) 365-6490

By: /S/ Linda A. Moschitto
Printed Name: Linda A. Moschitto
Title: Director-Contract Admin.
Fax Number: (860) 676-1814
Date Accepted: April 1, 1999

By: /S/ Michael O'Connell
Printed Name: Michael O'Connell
Title: Chief Financial Officer
Taxpayer ID# 94-2875566
Fax Number: (650) 365-6490
Dated: March 19, 1999

APS ANALYTICAL STANDARDS, INC.
123 Saginaw Drive
Redwood City, California 94063
Fax Number: (650) 365-6490

By: /S/ Michael O'Connell
Printed Name: Michael O'Connell
Title: Chief Financial Officer
Taxpayer ID# 94-3231278
Dated: March 19, 1999

PREMIER, INC.
123 Saginaw Drive
Redwood City, California 94063
Fax Number: (650) 365-6490

By: /S/ Michael O'Connell
Printed Name: Michael O'Connell
Title: Chief Financial Officer
Taxpayer ID# 06-1259435
Dated: March 19, 1999

APS JOINT VENTURE CORP.
123 Saginaw Drive
Redwood City, California 94063
Fax Number: (650) 365-6490

By: /S/ Michael O'Connell
Printed Name: Michael O'Connell
Title: Chief Financial Officer
Taxpayer ID# 94-3231278
Dated: March 19, 1999

STATE OF California
COUNTY OF San Mateo

I acknowledge that Michael O'Connell, who stated that he/she is Chief Financial Officer of Advanced Polymer Systems, Inc., signed this Master Loan and Security Agreement in my presence today: March 19, 1999. He/She acknowledged to me that his/her signature on this Master Loan and Security Agreement was authorized by a valid resolution or other valid authorization from Borrower's board of directors or other governing body.

/S/ Diane Anderson

Notary Public

[SEAL]

STATE OF California
COUNTY OF San Mateo

I acknowledge that Michael O'Connell, who stated that he/she is Chief Financial Officer of Advanced Polymer Systems, Inc., signed this Master Loan and Security Agreement in my presence today: March 19, 1999. He/She acknowledged to me that his/her signature on this Master Loan and Security Agreement was authorized by a valid resolution or other valid authorization from Borrower's board of directors or other governing body.

/S/ Diane Anderson

Notary Public

[SEAL]

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Notary Public

[SEAL]

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COUNTY OF San Mateo

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/S/ Diane Anderson

Notary Public

[SEAL]

Exhibit A

PREPAYMENT PREMIUM

You may not prepay the Loan, in whole or in part, prior to the date that you make the twenty-fourth (24th) timely consecutive monthly Payment. You shall have the right, upon not less than thirty (30) days prior written notice to Lender, on any regularly scheduled Payment date occurring after the twenty-fourth (24th) regularly scheduled Payment date, to prepay the outstanding principal balance of the Loan in whole, but not in part, provided that you shall pay to us, together with the principal balance of the Loan, (i) all accrued and unpaid interest on the amount prepaid through the date of prepayment, (ii) all outstanding fees, charges and other amounts then due under the Master Agreement, Schedule, Note and all of the other agreements, instruments and documents executed in connection herewith, and (iii) a prepayment fee ("Prepayment Fee") in an amount equal to the product of (A) the outstanding principal balance of the Loan at the time of prepayment, times (B) the applicable percentage set forth opposite the month of the Term in which the prepayment occurs, as set forth below:

Number of Month of the Term -----	Percentage -----
1 through and including 24	No Prepayment Permitted
25 through and including 36	2.75%
37 through and including 48	1.50%

THIS IS A MULTIPLE INDEBTEDNESS MORTGAGE FOR
PURPOSES OF LOUISIANA REVISED STATUTE ss.9:5217.

BE IT KNOWN, that on the dates set forth hereinbelow, before the Notaries Public, duly commissioned and qualified, in and for the jurisdictions set forth below and in the presence of the witnesses hereinafter named and undersigned,

PERSONALLY CAME AND APPEARED:

ADVANCED POLYMER SYSTEMS, INC., a corporation having its principal place of business at 123 Saginaw Drive, Redwood City, California 94063, organized under the laws of the State of Delaware (TIN#94-2875566) and authorized to do and doing business in the State of Louisiana, represented herein by Michael O'Connell, its duly authorized Vice President, pursuant to authority contained in its Corporate Resolutions, with a mailing address of 123 Saginaw Drive, Redwood City, California 94063 (hereinafter referred to as "Borrower"), who declared and acknowledged that Borrower is justly and truly indebted unto FINOVA CAPITAL CORPORATION, a corporation, having a principal place of business at 1850 North Central Avenue, Phoenix, Arizona 85004, organized under the laws of the State of Delaware, being represented herein by Linda A. Moschitto, its duly authorized Director, Contract Administration, with a mailing address of 1850 North Central Avenue, Phoenix, Arizona 85004 (hereinafter referred to as "Lender").

1. DEFINITION OF TERMS. As used in this Mortgage and Security Agreement, the following terms shall have the following meanings:

1.1 Land: The land described in Exhibit A attached hereto, together with all right, title and interest of Borrower thereto.

1.2 Improvements: (a) All buildings, structures and other improvements now or hereafter existing or erected on the Land, (b) all of Borrower's interest in personal property of any kind or nature whatsoever, which is or will be used on or in connection with, the Land or any of the foregoing, including, without limitation, all equipment, machinery, and furniture, together with all present and future attachments, accessions, replacements and additions located on the Land (the "Personalty"), and (c) all fixtures of every kind and nature now or hereafter owned by Borrower and used in connection with such improvements.

1.3 Property: The Land, Improvements, Easements or any portion thereof or interest therein.

1.4 Lease(s): All leases and other occupancy or use agreements, now or hereafter existing, which cover or relate to all or any portion of the Property.

1.5 Secured Debt: All principal, interest, late charges, other charges, prepayment and other premiums, indemnification amounts due or to become due by Borrower to Lender and all other liabilities of Borrower to Lender, howsoever created, whether now existing or hereafter arising including, without limitation, obligations under any guarantee and amounts due or to become due under the Loan Documents.

1.6 Notes: One or more promissory notes made by Borrower (which may contain co-borrowers) in favor of Lender, including, without limitation, a certain Promissory Note No. 1 of even date herewith made by Borrower (and APS Analytical Standards, Inc., Premier, Inc. and APS Joint Venture Corp.) to Lender in the principal amount of \$4,000,000.

1.7 Master Loan and Security Agreement: A certain Master Loan and Security Agreement of even date herewith made by Borrower, APS Analytical Standards, Inc., Premier, Inc., and APS Joint Venture Corp. in favor of Lender.

1.8 Indenture: This Mortgage and Security Agreement and all modifications or amendments thereto or extensions thereof.

1.9 Loan Documents: The Indenture, the Notes, the Master Loan and Security Agreement, personal property leases, guarantees, Uniform Commercial Code financing statements and amendments and any and all other documents or instruments related to or evidencing any portion of the Secured Debt, whether now or hereafter given or made by or on behalf of Borrower to Lender.

1.10 Easements: All easements, rights of way, gores of land, streets, ways, alleys, passages, sewer rights, water courses, water rights and powers, and all appurtenances whatsoever, in any way, now or in the future,

belonging, or relating to the Land, whether now owned or hereafter acquired by Borrower.

1.11 Maximum Amount: For purposes of recording this Indenture only, the maximum amount of the Secured Debt secured by this Indenture shall be \$4,000,000.

2. GRANTING CLAUSES. Borrower hereby irrevocably and absolutely grants, assigns, mortgages, bargains, sells and conveys to Lender, with all POWERS OF SALE AND STATUTORY RIGHTS AND COVENANTS, and grants to Lender a security interest in all of Borrower's estate, right, title and interest in the Property, together with all proceeds thereof (including but not limited to Insurance Proceeds and Taking Proceeds as hereinafter defined) FOR THE PURPOSE OF SECURING payment of the Secured Debt and the due, prompt and complete observance, performance and fulfillment of each and every obligation, covenant, condition, warranty, agreement and representation of Borrower contained in the Loan Documents. This Indenture is also intended to be a security agreement under the Uniform Commercial Code as in force, from time to time, in the State where the Improvements are located (the "State").

3. ASSIGNMENT OF LEASES AND RENTS. As additional collateral for the payment of the Secured Debt, Borrower hereby assigns to Lender the Leases, including the rents, income and profits of the Property, and grants the Lender the right to enter upon and take possession of the Property for the purpose of collecting the same and to let the Property or any part thereof, and to apply the rents, income and profits (after payment of all necessary charges and expenses) on account of the Secured Debt. Until an Event of Default as hereinafter defined shall occur, Borrower shall be entitled to collect and receive said rents, income and profits. Borrower warrants that: (a) Borrower is or will be the sole owner of the entire lessor's interest in the Leases; (b) the Leases are or will be valid and enforceable and have not been and will not be altered, modified, or amended in any manner whatsoever except as herein set forth; (c) no rents reserved in the Leases have been or will be assigned or anticipated; (d) no rents for any period subsequent to the date of this assignment have been or will be collected in advance of the time when the same shall become due under the terms of the Leases. Borrower will not (i) execute any other assignment of its interest in the Leases or assignment of rents arising or accruing from the Lease or from the Property; (ii) alter, modify or change the terms of any Lease or give any consent to exercise any option required or permitted by such terms without the prior written consent of Lender; (iii) consent to any assignment or subletting under any Lease not in accordance with its terms, without the prior written consent of Lender. If an Event of Default shall occur Borrower will, upon Lender's demand, pay monthly in advance to Lender or to any receiver appointed to collect said rents, income and profits, the fair and reasonable rental value for the use and occupation of the Property. The exercise by Borrower of any right or remedy available under applicable law with respect to the Lease including without limitation, the collection of the rents, income and profits and the application thereof as herein provided shall not be considered a waiver of any default by Lender under this Indenture or the Lease or this assignment. Lender shall not be liable for any loss sustained by Borrower resulting from Lender's failure to let the Property after default or from any other act or omission of Lender in managing the Property after default unless such loss is caused by the willful misconduct and bad faith of Lender. Lender shall not be obligated to perform or discharge any obligation, duty, or liability under any Lease or under or by reason of this assignment. Should Lender incur any such liability under any Lease or under or by reason of this assignment, or in defense of any such claims or demands, the amount thereof, including costs, expenses and reasonable attorneys' fees, shall be Secured Debt.

4. REPRESENTATIONS AND WARRANTIES. Borrower hereby represents and warrants to Lender that the following are true, correct and complete as of date of the Indenture:

4.1 Due Organization; Authority. If Borrower is a corporation, partnership or a limited liability company, it is duly organized, validly existing and in good standing under the laws of the State of its organization and is duly qualified to conduct business and is in good standing in the State and has power to carry on its business as presently conducted, to own the Property, to make and enter into the Loan Documents and to carry out the transaction contemplated therein.

4.2 Execution, Delivery and Effect of Loan Documents. The Loan Documents have each been duly authorized, executed and delivered by Borrower, and each of the Loan Documents is a legal, valid and binding obligation of Borrower, enforceable in accordance with its terms.

4.3 No Violation; Required Approvals. Borrower is not in material violation of any term or provision of any document governing its organization or existence or in default under any material instruments or obligations relating to Borrower's business, assets or the Property and no claim or

default relating to such instruments, assets, business, or the Property has been asserted against Borrower. The execution and performance by Borrower of the Loan Documents and the consummation of the transactions contemplated thereby will not result in any material breach of, or constitute a material default under, any contract, agreement, document or other instrument to which Borrower is a party or by which Borrower may be bound or affected. No approval by, authorization of, or filing with any federal, state or municipal or other governmental commission, board or agency or other governmental authority is required in connection with the authorization, execution and delivery of the Loan Documents.

4.4 Construction and Completion of Improvements. The Improvements have been completed and installed in a good and workmanlike manner, in compliance with the Laws as such term is hereinafter defined. There are no contracts or agreements of any kind, either oral or in writing, now in existence covering labor or materials heretofore furnished or to be furnished in connection with the Property which are incomplete nor is any indebtedness outstanding for labor and materials in connection with the Property.

4.5 Litigation. There are no pending or threatened suits, judgments, executions, condemnation, proceedings, zoning changes or any other proceedings pending or of record in any court of any nature or before or by any governmental or administrative agency which could in any manner now or hereafter affect the Borrower's title to, possession of or use of the Property, or which could now be or hereafter constitute a lien thereon or materially or adversely affect the Property or Borrower or change the Property. No petitions or cases have been filed by or against Borrower under any federal or state insolvency law. No portion of the Property is subject to any right of redemption in favor of any third party under the foreclosure laws of the State.

4.6 Financial Statements. All statements, financial or otherwise, submitted to Lender in connection with the extension of credit evidenced by the Loan Documents are true, correct and complete in all material respects, and do not omit the statement of any fact or circumstance necessary to prevent the statement contained therein from being misleading or false and all such financial statements have been prepared in accordance with generally accepted accounting principles, consistently applied, and fairly present the financial condition of Borrower or entities covered by such statements as of the date thereof. Since the date thereof, neither Borrower nor any such entity has experienced any material adverse change in its finances, business, operations, affairs or prospects.

4.7 Title to Property. Borrower has good and clear, record and marketable title to the Property, free of all liens, encumbrances or restrictions.

4.8 Hazardous Waste. To the knowledge of the Borrower, after due inquiry, the Land and Improvements have never been used as a land fill to receive solid waste, whether or not hazardous, and has not been used for disposal, storage or treatment of any waste, trash, garbage, industrial by-product, chemical or hazardous substance of any nature, including without limitation radioactive containers, polychlorinated biphenyls, asbestos, pesticides, herbicides, pesticide or herbicide containers, untreated sewage, industrial process sludge or any "hazardous substance" as such term is defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended. The Property does not now and will not contain asbestos insulation or electrical transformers cooled by phenylchlorobenzene. To the knowledge of Borrower, after due inquiry, no release (a "Release") of oil or petroleum or chemical liquids or solids, liquid or gaseous products or hazardous substance has occurred on the Land or other real property in the State, now or previously owned by Borrower or any of the partners of Borrower (if Borrower is a partnership), or any of the stockholders or other persons having a legal or beneficial interest in Borrower (if Borrower is a corporation, trust or other legal entity). Borrower has not received any notice from any governmental agency or from any tenant under a Lease with respect to any such Release.

4.9 Compliance with the Law. The Improvements and the use to which the Borrower makes thereof, comply with all applicable restrictive covenants, zoning ordinances, building codes and flood disaster laws; that Borrower has obtained all requisite zoning, utility and building permits from all governmental entities or authorities having jurisdiction over the Property; and that no permits or licenses are required for the operation of the Property.

4.10 Flood Plain. The Property is not located in an area designated as a Flood Plain or if so located Borrower has obtained Federal Flood Plain insurance coverage and delivered a certificate of such coverage to Lender.

4.11 Taxes; Liens. There are no unpaid taxes, assessments or liens against the Property for any present or past due taxes or for paving,

sidewalk, curbing, sewer or any other street improvements of any kind, with the exception of real estate taxes which are not yet due and payable.

4.12 Purpose of Loan; Homestead; Knowledge of Real Estate. The proceeds of the Loan shall be used solely for commercial or business purposes. The obligations evidenced by the Loan Documents are made on Borrower's own behalf and for its own account. No portion of the Property is or will be used as the residential homestead of Borrower. Borrower is knowledgeable and experienced in real estate transactions and real estate financing, is represented by counsel or persons who have such knowledge and experience or has been made aware that Borrower should be represented by counsel and has declined to be so represented.

4.13 Year 2000. Borrower shall take all action necessary to assure that there will be no material adverse change to Borrower's business by reason of the advent of the year 2000, including without limitation, that all computer-based systems, embedded microchips and other processing capabilities effectively recognize and process dates after April 1, 1999.

5. COVENANTS OF BORROWER.

5.1 Payments.

(a) Secured Debt. Borrower shall pay promptly to Lender, when due, the Secured Debt at the times and in the manner provided in the Loan Documents. Time is of the essence with respect to payment of the Secured Debt.

(b) Property Taxes and Charges. Borrower shall pay, prior to delinquency, all real estate taxes and personal property taxes, assessments, levies, utility and sewer charges, and any and all taxes and other charges, imposed upon or assessed against Borrower or the Property or upon the rents, income and profits of use or possession thereof, and any stamp or other taxes which may be required to be paid with respect to any of the Loan Documents ("Property Taxes and Charges"). Upon Lender's request Borrower shall furnish Lender with receipts showing payment of the Property Taxes and Charges prior to such Property Taxes and Charges becoming delinquent.

(c) Taxes on Lender. If the Laws impose upon Lender the obligation to pay the whole or any part of the Property Taxes and Charges or changes in any way the Laws relating to taxation so as to adversely affect the Loan Documents, then Borrower shall pay such Property Taxes and Charges or reimburse Lender for such adverse affect immediately therefor, unless in the opinion of counsel to Lender, it might be unlawful to require Borrower to pay the same or such payment might result in the imposition of interest prohibited by the Laws.

(d) Liabilities. Borrower shall pay, prior to delinquency, all debts and liabilities incurred in the construction, operation, development, use, enjoyment, repair, maintenance, replacement, restoration and management of the Property including, without limitation, utility charges, sums due mechanics and materialmen and other sums secured or which might if unpaid become liens on the Property.

(e) Expenses. Borrower shall, to the extent allowed by the Laws, pay, on demand and without counterclaim, setoff, deduction, defense, or reduction, all fees (including, without limitation, reasonable attorneys' fees and disbursements), taxes, recording fees, commissions and other liabilities, costs and expenses incurred in connection with (i) the making or enforcement of the Loan Documents; (ii) Lender's exercise and enforcement of its rights and remedies hereunder; and (iii) Lender's protection of the Property and its interest therein, including but not limited to Lender's right to have performed an environmental site assessment of the Property and to require any and all work be completed based upon such environmental site assessment. Borrower shall not be entitled to any credit against or in reduction of the Secured Debt by reason of the payment of any sums required to be paid under Paragraph 5.1 (b) through (e) hereof.

5.2 Operation of the Property.

(a) Maintenance; Alterations. Borrower shall maintain and preserve the Property in good repair and condition and shall not commit, permit or suffer any demolition or waste of the Property or any use or occupancy which constitutes a nuisance or violation under the Laws.

(b) Liens. Borrower shall promptly discharge any mechanics', laborers', materialmen's or similar or other lien, charge, attachment, or lis pendens filed or recorded which relates to Borrower, the Property or any Release.

(c) Compliance with Laws and Private Covenants. Borrower shall keep, observe, and satisfy, and not suffer violations of any, Federal,

regional, State and local laws (including, without limitation, all environmental laws), ordinances, rules, regulations, statutes, decisions, order, judgments, directives or any governmental or regulatory authority, court or arbitrator (collectively "Laws") and private covenants materially affecting the Property. Should Borrower receive notice from any governmental agency, any tenant under a Lease or have actual knowledge of a Release at the Property, Borrower shall promptly comply with all applicable laws requiring notice, removal, treatment or disposal of such Release and provide Lender with satisfactory evidence of such compliance. Borrower shall provide Lender within thirty (30) days after demand by Lender, with a bond, letter of credit or similar financial assurance evidencing to Lender's satisfaction that sufficient funds are available to pay the cost of removing, treatment and disposing of such Release and discharging any assessment that may be established on the Property as a result thereof.

(d) Inspection. Borrower shall permit Lender to enter upon and inspect the Property at reasonable times without delay, hindrance or restriction.

5.3 Insurance. Borrower shall obtain and keep in force, with one or more insurers acceptable to Lender, such insurance as Lender may from time to time require by notice to Borrower, including, as a minimum, insurance providing (i) comprehensive general liability (including bodily injury and property damage coverage) with a broad form coverage endorsement and a combined single limit of at least \$2,000,000.00, and (ii) protection against fire, "extended coverage" and other "All Risk" perils, including, if specifically required by Lender, earthquake and flood, to the full replacement value of the Property, with a waiver of subrogation endorsement. All property insurance policies shall include the standard mortgagee clause in use in the State naming Lender as the first mortgagee with loss payable to Lender as such mortgagee and all other policies shall name Lender as an additional insured. All insurance policies shall not be cancelable or modifiable without 30 days' prior written notice to Lender (except in the case of cancellation due to non-payment, in which case, the number of days shall be 10) and shall provide for a deductible of not more than \$5,000.00 for any single "Casualty" as hereinafter defined. Borrower shall provide Lender with evidence of compliance with this Paragraph in such forms as required from time to time by Lender, or at least 15 days prior to the expiration date of any policy required hereunder, each bearing notations evidencing the prior payment of premiums.

5.4 Sales; Leases and Encumbrances. Borrower shall not, without the prior written consent of Lender, (a) convey, assign, sell, mortgage, encumber, pledge, hypothecate, grant a security interest in, grant options with respect to, lease or otherwise dispose of all or any part of any legal or beneficial interest in any part or all of the Property, or any interest therein; or (b) convey, assign, transfer or otherwise dispose of a material portion of the assets of Borrower (other than the Property), other than in the ordinary course of business of Borrower.

5.5 Change of Control of Borrower. Borrower shall not, without the prior written consent of Lender, directly or indirectly permit the legal or beneficial ownership of Borrower to change from that reflected on the documents submitted to Lender to induce it to enter into the Loan Documents.

5.6 Financial Records and Statements. Borrower shall keep accurate books and records in accordance with generally accepted accounting principles consistently applied (or other basis of accounting practice prescribed or permitted by Lender), in which full, true and correct entries shall be promptly made as to all operations of the Property and shall permit all such books and records to be inspected and copies made by Lender, its designees or its representatives during customary business hours. Borrower shall deliver or cause to be delivered to Lender within 90 days after the close of its fiscal year a statement of condition or balance sheet of Borrower and if requested by Lender a further statement relating solely to the Property, as at the end of such year and an annual operating statement showing in reasonable detail all income and expenses of Borrower certified as to accuracy by either an independent certified public accountant acceptable to Lender (if requested by Lender) or the senior financial officer or managing partner of Borrower.

5.7 Further Assurances. Borrower shall promptly upon request of Lender (a) correct any defect, error or omission which may be discovered in the contents of any Loan Document or in the execution or acknowledgment thereof; (b) execute, acknowledge, deliver and record or file such further instruments (including, without limitation, mortgages, deeds of trust, security agreements, financing statements and specific assignments of rents or leases) and do such further acts, in either case as may be necessary, desirable or proper in Lender's opinion to (i) protect and preserve the first and valid lien and security interest of this Indenture on the Property or to subject thereto any property intended by the terms thereof to be covered thereby; or (ii) protect the interest and security interest of Lender in the Property

against the rights or interests of third parties, and (iii) carry out more effectively the purposes of the Loan Documents. Borrower hereby appoints Lender as its attorney-in-fact, coupled with an interest, to take the above actions and to perform such obligations on behalf of the Borrower, at Borrower's sole expense, if Borrower fails to comply fully with this Paragraph.

5.8 Indemnity. Borrower shall indemnify, defend and hold harmless Lender from and against, and, upon demand, reimburse Lender for, all claims, demands, liabilities, losses, damages, judgments, penalties, costs and expenses, including, without limitation, reasonable attorneys' fees and disbursements, which may be imposed upon, asserted against or incurred or paid by Lender by reason of, on account of or in connection with any bodily injury or death or property damage occurring in, upon or in the vicinity of the Property through any cause whatsoever, or asserted against Lender on account of any act performed or omitted to be performed under the Loan Documents or on account of any transaction arising out of or in any way connected with the Property or the Loan Documents, except as a result of the willful misconduct or gross negligence of Lender. This provision shall survive payment in full of the Secured Debt.

5.9 Notices. Borrower shall deliver to Lender at Lender's address set forth herein promptly upon receipt of the same, copies of all notices, certificates, documents and instruments received by Borrower which materially and adversely affect Borrower, the Property or the Leases, including, without limitation, those given in connection with a Release.

5.10 Estoppel Certificates. Borrower shall promptly furnish to Lender from time to time, on the request of Lender, written statements signed and, if so requested, acknowledged, setting forth the then unpaid principal and interest on the Note and specifying any claims, offsets or defenses which Borrower asserts against the Secured Debt or any obligations to be paid or performed by Borrower under the Loan Documents, together with any other information reasonably requested by Lender.

5.11 Defense. Borrower shall, without liability, cost or expense to Lender, protect, preserve and defend title to the Property and the security interest of Lender, against all adverse claimants to title or any possessory or non-possessory interests therein.

5.12 Year 2000. Borrower shall take all action necessary to assure that there will be no material adverse change to Borrower's business by reason of the advent of the year 2000, including without limitation, that all computer-based systems, embedded microchips and other processing capabilities effectively recognize and process dates after April 1, 1999. At Lender's request, Borrower shall provide to Lender assurance reasonably acceptable to Lender that Borrower's computer-based systems, embedded microchips and other processing capabilities are year 2000 compatible.

6. CASUALTIES AND TAKINGS.

6.1 Notice to Lender. In the case of any act or occurrence of any kind or nature which results in damage, loss or destruction to the Property (a "Casualty"), or commencement of any proceedings or actions which might result in a condemnation or other taking for public or private use of the Property or which related to injury, or damage thereto (a "Taking"), Borrower shall immediately notify Lender describing the nature and the extent of the Taking or the Casualty, as the case may be. Borrower shall promptly furnish to Lender copies of all notice, pleadings, determinations and other papers in any such proceedings or negotiations.

6.2 Repair and Replacement. In case of a Casualty or Taking, Borrower shall promptly (at Borrower's sole cost and expense and regardless of whether the insurance or other proceeds, if any, shall be sufficient or made available by Lender for the purpose) restore, repair, replace and rebuild the Property as nearly as possible to its quality, utility, value, condition and character immediately prior to the Casualty or the Taking, as the case may be.

6.3 Proceeds.

(a) Collection. Borrower shall use its best efforts to collect the maximum amount of insurance proceeds payable on account of any Casualty ("Insurance Proceeds"), and the maximum award or payment or compensation payable on account of any Taking ("Taking Proceeds"). In the case of a Casualty, Lender may, at its sole option, make proof of loss to the insurer if not made promptly by Borrower. Borrower shall not settle or otherwise compromise any claim for Insurance Proceeds or Taking Proceeds without Lender's prior written consent.

(b) Assignment to Lender. Borrower hereby assigns, sets over and transfers to Lender all Insurance Proceeds and Taking Proceeds and authorizes

payment of such Proceeds to be made directly to Lender. Lender may, in its sole discretion, apply such Proceeds to either of the following, or any combination thereof:

(i) payment of the Secured Debt, in any order that Lender determines and with respect to the Notes as provided therein; or

(ii) repair or replacement of any part of the Property so destroyed, damaged or taken, in which case Lender may impose such terms, conditions and requirements for the disbursement of proceeds for such purposes as it, in its sole discretion, deems advisable.

If any portion of the Secured Debt shall thereafter be unpaid, Borrower shall not be excused from the payment thereof in accordance with the terms of the Loan Documents. Lender shall not, in any event or circumstance, be liable or responsible for failure to collect or exercise diligence in the collection of any Insurance Proceeds or Taking Proceeds.

7. DEFAULTS; REMEDIES OF LENDER

7.1 Events of Default. Any of the following shall constitute an "Event of Default" hereunder or under the Note:

(a) Breach of Payment. The failure by Borrower to pay any portion of the Secured Debt within ten (10) days of the date when due including, without limitation, the Note or any installment thereof when due; or

(b) Misrepresentations. Any representation or warranty made by Borrower in the Loan Documents or any certificate or agreement delivered in connection with the Loan Documents proves to be untrue, misleading or is, without limitation, not fulfilled in any material respect; or

(c) Breach of Covenants. Any breach by Borrower of any covenants in the Loan Documents or failure to observe or perform any other covenants, agreement, condition, term or provision of any of the Loan Documents or any certificate or agreement delivered in connection with the Loan Documents, which breach or failure continues for 30 days after written notice thereof by Lender to Borrower; or

(c) Change of Control. The occurrence of prohibited Change of Control as provided in Section 5.5 hereof; or

(e) Bankruptcy. If (i) any one or more of the then legal or beneficial owners of the Property, or any individual or entity then personally liable on the Secured Debt (including, without limitation, any guarantor) or, if Borrower is a partnership or a limited liability company, any general partner, joint venturer or member (collectively the "Parties in Interest" and individually a "Party in Interest") become insolvent, makes a transfer in fraud of, or an assignment for the benefit of creditors, or admits in writing its inability, or is unable to pay debts as they become due; or (ii) a receiver, custodian, liquidator or trustee is appointed for all or substantially all of the assets of a Party in Interest or for the Property in any proceeding brought by a Party in Interest, or any such receiver or trustee is appointed in any proceeding brought against a Party in Interest or the Property and such appointment is not promptly contested or is not dismissed or discharged within 120 days after such appointment, or a Party in Interest consents or acquiesces in such appointment; or (iii) a Party in Interest files a petition under the Bankruptcy Code, as amended, or under any similar law or statute of the United States or any state thereof; or (iv) a petition against a Party in Interest is filed commencing an involuntary case under any federal or state insolvency law including the Bankruptcy Code and such petition is not dismissed or discharged within 120 days after the filing thereof; or (v) any composition, rearrangement, liquidation, extension, reorganization or other relief of debtors now or hereafter existing is requested by a Party in Interest; or

(f) Adverse Court Action. A court of competent jurisdiction enters an order staying the enforcement of this Indenture with respect to, assumes custody of or sequesters all or a substantial part of, the Property, or the Property is taken on execution or by process of law.

(g) Default by APS Analytical Standards, Inc. APS Analytical Standards, Inc. breaches or defaults on any of the terms or provisions of any agreement, instrument or document, whether now or hereafter executed, with or for the benefit of Lender, including without limitation, promissory notes, guaranties, equipment leases and security documents (including, but not limited to security agreements, mortgages and deed of trust); or

(h) Default by Premier, Inc. Premier, Inc. breaches or defaults on any of the terms or provisions of any agreement, instrument or document, whether now or hereafter executed, with or for the benefit of Lender, including without limitation, promissory notes, guaranties, equipment leases

and security documents (including, but not limited to security agreements, mortgages and deeds of trust); or

(i) Default by APS Joint Venture Corp. APS Joint Venture Corp. breaches or defaults on any of the terms or provisions of any agreement, instrument or document, whether now or hereafter executed, with or for the benefit of Lender, including without limitation, promissory notes, guaranties, equipment leases and security documents (including, but not limited to security agreements, mortgages and deeds of trust).

7.2 Remedies. In case of an Event of Default, Lender may, at any time thereafter, at its option and without notice, exercise any or all of the following remedies:

(a) Acceleration. Declare the entire Secured Debt immediately due and payable, without notice, and it shall thereupon be immediately due and payable; or

(b) Judicial Foreclosure and Other Action. Commence and maintain an action or actions in any court of competent jurisdiction to foreclose this Indenture pursuant to the Laws of the State or to obtain specific enforcement of the covenants of Borrower hereunder. Borrower agrees that such covenants shall be specifically enforceable by injunction or any other appropriate equitable remedy; or

(c) Confession of Judgment. To cause the Property to be seized and sold under executory process without appraisal, appraisal being expressly waived, as an entirety or in parcels, as Lender may determine, to the highest bidder for cash. Borrower hereby confesses judgment in favor of the Lender, or any future holder or holders of the Note up to the full amount of principal, interest and attorney's fees and for any sums that the Lender may advance during the life of this mortgage for the payment of premiums of insurance, taxes and assessments or for the protection and preservation of its mortgage as authorized elsewhere in this act. Borrower does herein and hereby waive, in favor of the lender, and in favor of any future holder of the Note secured hereby, any and all homestead exemption to which Borrower is or may be entitled under the Constitution and laws of the State of Louisiana, insofar as the Property hereby mortgaged is concerned.

Borrower hereby expressly waives: (i) the benefit of appraisal as provided in Articles 2332, 2336, 2723 and 2724, Louisiana Code of Civil Procedure, and all other laws conferring the same; (ii) the demand and three (3) days delay accorded by Articles 2639 and 2721, Louisiana Code of Civil Procedure; (iii) the Notice of Seizure required by Articles 2293 and 2721, Louisiana Code of Civil Procedure; (iv) the three (3) days delay provided by Articles 2331 and 2722, Louisiana Code of Civil Procedure; and (v) the benefit of the other provisions of Articles 2331, 2722 and 2723, Louisiana Code of Civil Procedure, and any other Articles not specifically mentioned above; and Borrower expressly agrees to the immediate seizure of the Property subject to this mortgage in the event of suit thereof.

(d) Offset Rights. Apply in satisfaction of the Secured Debt or any amount at any time to become due or payable in connection with the ownership, occupancy, use, restoration or repair of the Property, any deposits or other sums credited by or due from Lender to Borrower, including, without limitation, Insurance Proceeds and the Taking Proceeds; or

(e) Cure a Default. Without releasing Borrower from any obligation hereunder or under the Loan Documents, cure any default by Borrower. In connection therewith, Lender may enter upon the Property and do such acts and things as Lender deems necessary or desirable to protect the Property or the Leases; or

(f) Possession of Property. Take physical possession of the Property and of all books, records, documents and accounts relating thereto and exercise, without interference from Borrower, any and all rights which Borrower has with respect to the Property, including, without limitation, the right at Borrower's expense, to rent and lease the same and to hire a professional property manager for the Property. If necessary to obtain possession as provided for above, Lender may, without liability to Borrower or other persons, invoke any and all legal remedies to dispossess Borrower, including, without limitation, one or more actions for forcible entry and detainer, trespass and restitution. In connection with any action taken by Lender pursuant to this Paragraph Lender shall not be liable for any loss sustained by Borrower resulting from any failure to let the Property or from any other act or omission of Lender in managing the Property unless caused by the willful misconduct or gross negligence of Lender, nor shall Lender be obligated to perform or discharge any obligation, duty or liability under any Lease or by reason of any Loan Document. Should Lender incur any such liability, the amount thereof shall be secured hereby and Borrower shall reimburse Lender therefor immediately upon demand. Lender shall have full power to make, from time to time, all alterations, renovations, repairs and

replacements to the Property as may seem proper to Lender; or

(g) Receiver. Secure the appointment of a receiver for the Property whether such receivership be incident to a proposed sale of such Property or otherwise, and without regard to the value of the Property or the solvency of Borrower. Borrower hereby consents to the appointment of such receiver or receivers, waives any and all defenses to such appointment and agrees not to oppose any application therefor by Lender. The appointment of such receiver, trustee or other appointee by virtue of any court order, or laws shall not impair or in any manner prejudice the rights of Lender to receive payment of rents and income; or

(h) Uniform Commercial Code Remedies. Exercise any and all rights of a secured party with respect to that portion of the Indenture which constitutes personal property under the Uniform Commercial Code of the State. Written notice mailed to Borrower, as provided herein, 10 days prior to the date of public sale of the Personalty or prior to the date, after which private sale of such Personalty will be made, shall constitute reasonable notice. Any sale made pursuant to the provisions of this Paragraph shall be deemed to have been a public sale conducted in a commercially reasonable manner, if held contemporaneously with the sale of the remainder of the Property. In the event of a foreclosure sale, whether made by Lender under the terms hereof, or under judgment of a court, such Personalty and the other parts of the Property may, at the option of Lender, be sold in parts or as a whole; or

(i) Subrogation. Have and exercise all rights and remedies of any person, entity or body politic to whom Lender renders payment or performance in connection with the exercise of its rights and remedies under the Loan Documents; or

(j) Keeper. In the event of foreclosure, Lender may elect to serve as keeper ("Keeper") or to designate a Keeper and in such case, if Lender so elects, Borrower hereby expressly authorizes and appoints Lender or its designee as the Keeper of the Property pursuant to La.R.S. ss. 9:5136, et seq. The reasonable compensation of the Keeper shall be secured by the lien of this Indenture; or

(k) Louisiana Provisions. This Indenture has been executed by Borrower pursuant to Louisiana Civil Code articles 3278 et seq., La. R.S. ss. 9:4401, La. R.S. ss.9:5386-5388, Ln. R.S., ss. 10:1-101 et seq. (the "Uniform Commercial Code" or "UCC") and other applicable laws, for the purpose of securing the Secured Debt that may now be existing and/or that may arise in the future as provided herein, with the preferences and priorities provided under applicable Louisiana law. In accordance with the requirements of applicable law, including Louisiana Civil Code art. 3288 and La. R.S. ss. 9:4401, Borrower acknowledges, notwithstanding any other provision of this Indenture or any other Loan Document to the contrary, the maximum amount of Secured Debt secured hereby shall be U.S. \$50,000,000.00. Borrower authorizes Lender to file multiple originals, or photocopies, carbon copies, or facsimile copies of this Indenture or of such financing statements with the appropriate filing officer in the State of Louisiana pursuant to the provisions of the Uniform Commercial Code. Borrower's employer identification number is accurately set out on the first page of this Indenture. Borrower will not change its employer identification number or its name, identity or corporate structure so that any financing statement filed in connection herewith may become seriously misleading unless and until it notifies Lender in writing and executes all new appropriate financing statements or other such documents as Lender may require, with Borrower being required to pay the cost of such documentation and the filing thereof as provided above.

(1) Other. Take such other actions or commence such other proceedings under the Laws as Lender deems necessary or advisable to protect its interest in the Property and/or collect the Secured Debt.

Any sums advanced by Lender under this Paragraph or Paragraph 5.1 hereof shall bear interest at the interest rate specified in the Note plus 5%, (but in no event more than the maximum rate permitted by law); and shall be payable by Borrower on demand and such sums together with such interest thereon shall constitute a part of the Secured Debt.

7.3 Holding Over. Should Borrower, after an Event of Default, continue in possession of any part of the Property unlawfully, Borrower shall be a tenant from day to day, terminable at the will of either Borrower or Lender, at a reasonable rental per diem, such rental to be due and payable daily to Lender.

7.4 General Provisions Relating to Remedies.

(a) Cumulative Remedies. All of the rights, remedies and options set forth herein or otherwise available at law or in equity are cumulative

and concurrent and may be exercised without regard to the adequacy of or exclusion of, any other right, remedy, option or security held by Lender.

(b) Right to Purchase. At any sales of the Property pursuant hereto, Lender shall have the right to purchase the Property being sold, and in such cases the right to credit against the amount of the bid made therefor (to the extent necessary) all or any of the Secured Debt then due. If Lender acquires the Property Borrower shall not be entitled to any proceeds of the further sale of the Property by Lender.

(c) No Waiver or Release by Lender. Lender may resort to any remedies and the security given by the Loan Documents in whole or in part, and in such portions and in such order as may seem best to Lender in its sole discretion, and any such action shall not in any way be considered as a waiver of any of the rights, benefits or remedies evidenced by the Loan Documents. The failure of Lender to exercise any right, remedy or option provided for in the Loan Documents shall not be deemed to be a waiver of any of the covenants or obligations secured by the Loan Documents. No sale of all or any of the Property, no forbearance on the part of Lender and no extension of the time for the payment of the whole or any part of the Secured Debt or any other indulgence given by Lender to Borrower or any other person or entity including, without limitation, any surrender, compromise, release, renewal, extension, exchange or substitution which Lender may grant in respect of the Property or any interest therein or any release or indulgence granted to any maker, endorser, guarantor or surety of any of the Secured Debt, shall operate to release or in any manner affect Lender's interest in the Property or the liability of Borrower to pay the Secured Debt, except to the extent that such liability shall be reduced by proceeds of sale of all or any of the Property received by Lender.

(d) Waiver by Borrower. Borrower hereby waives the benefit of any laws providing for appraisal or redemption, waives any right to bring or utilize any defense, counterclaim or setoff, other than one in good faith which denies the existence or sufficiency of the facts upon which the foreclosure action is grounded or which is based on Lender's wrongful actions. If any defense, counterclaim or setoff (other than one permitted by the preceding sentence) is timely raised in such foreclosure action, such defense, counterclaim or setoff shall be dismissed. If such defense, counterclaim or setoff is based on a claim which could be tried in an action for money damages, the foregoing waiver shall not bar a separate action for such damages (unless such claim is required by Laws or applicable rules of procedure to be pleaded in or consolidated with the action initiated by Lender) but such separate action shall not thereafter be consolidated with Lender's foreclosure action. The bringing of such separate action for money damages shall not be deemed to afford any grounds for staying Lender's foreclosure action. Borrower waives any and all right to a trial by jury in any action or proceeding based hereon.

8. GENERAL.

(a) Amendments. The Loan Documents may not be waived, changed or discharged orally, but only by an agreement in writing and signed by Lender. Such permitted waiver, change or discharge shall be effective only in the specific instances and for the purposes for which given and to the extent therein specified. Reference to any of the Loan Documents in this Indenture shall include all amendments, modifications, extensions and renewals thereof.

(b) Notices. Any notice request, demand or other communication required or permitted under the Loan Documents (unless otherwise expressly provided therein) shall be given in writing by delivering the same in person to the intended addressee, by overnight courier service addressed as provided herein or as either Borrower or Lender shall have designated by written notice to the other. Such notices shall be deemed given when received or, in the case of delivery by courier service with guaranteed next day delivery, the next day or the day designated for delivery, or in the case of delivery by certified United States Mail, two days after deposit therein. No notice to or demand on Borrower in any case shall of itself entitle Borrower to any other or further notice or demand in similar or other circumstances.

(c) Successors and Assigns. The terms, provisions, and conditions hereof shall be binding upon Borrower, and any permitted successors and assigns of Borrower, and shall inure to the Land. All references in this Indenture to Borrower or Lender shall be deemed to include all such successors and assigns.

(d) Severability. A determination that any provision of the Loan Documents is unenforceable or invalid shall not affect the enforceability or validity of any other provision, and any determination that the application of any provision of the Loan Documents to any person or circumstances is illegal or unenforceable shall not affect the enforceability or validity of such provision as it may apply to any other persons or circumstances.

(e) Joint and Several Liability. If there is more than one Borrower, the obligations and covenants of each Borrower shall be joint and several.

(f) Governing Laws. This Indenture shall be construed according to and governed by the Laws of the State.

(g) Publicity. Lender is hereby authorized to issue appropriate press releases and to cause a tombstone to be published announcing the consummation of this transaction and the aggregate amount thereof.

(h) Captions. All paragraph and subparagraph captions are for convenience of reference only and shall not affect the construction of any provision herein.

LENDER:
FINOVA CAPITAL CORPORATION

BORROWER:
ADVANCED POLYMER SYSTEMS, INC.

BY: /S/ Linda A. Moschitto

BY: /S/ Michael O'Connell

1850 North Central Avenue
Phoenix, Arizona 85004

123 Saginaw Drive
Redwood City, California 94063

DATED AS OF:

DATED AS OF:

March 29, 1999

March 19, 1999

THUS DONE AND SIGNED by the Borrower on the 19th day of March, 1999 in the County of San Mateo, before me, Diane C. Anderson, the undersigned Notary Public, duly commissioned and qualified in and for said County and State, and in the presence of the undersigned competent witnesses, who have signed with the undersigned Borrower after a due reading of the whole.

WITNESSES:

ADVANCED POLYMER SYSTEMS, INC.

/S/ Mercedes Reshke

/S/ Michael O'Connell
BY: -----

/S/ Alice Gray

/S/ Diane C. Anderson

NOTARY PUBLIC

My Commission Expires: July 30, 1999

THUS DONE AND SIGNED by the Borrower on the 24th day of March, 1999 in the County of Hartford, before me, Connecticut, the undersigned Notary Public, duly commissioned and qualified in and for said County and State, and in the presence of the undersigned competent witnesses, who have signed with the undersigned Borrower after a due reading of the whole.

WITNESSES:

FINOVA CAPITAL CORPORATION

/S/ Barbara A. Sullivan

/S/ Linda A. Moschitto
BY: -----

/S/ Gina Kluza

/S/ Linda M. Parady

NOTARY PUBLIC

My Commission Expires: 6/30/2001

PROMISSORY NOTE
NO. 1

\$4,000,000

March 29, 1999

ADVANCED POLYMER SYSTEMS, INC., a Delaware corporation, APS ANALYTICAL STANDARDS, INC., a California corporation, PREMIER, INC., Connecticut corporation, and APS JOINT VENTURE CORP., a Delaware corporation (individually and collectively, "you"), jointly and severally, promise to pay to the order of FINOVA CAPITAL CORPORATION ("we," "us" or "FINOVA") the principal amount of Four Million Dollars (\$4,000,000), together with interest on the unpaid principal balance at the interest rate per annum and on the dates and as otherwise provided in the "Master Agreement" and "Schedule" referred to below.

If the interest rate charged would exceed the maximum legal rate, you will only have to pay the maximum legal rate. You do not have to pay any excess interest over and above the maximum legal rate of interest. However, if it later becomes legal for you to pay all or part of any excess interest, you will then pay it to us upon our request.

You will make all payments in US Dollars at our offices at 10 Waterside Drive, Farmington, Connecticut 06032-3065, or to another address that we request in writing. All payments will be made in immediately available funds.

This Note is secured by a Master Loan and Security Agreement dated March 29, 1999 (the "Master Agreement"), between you and FINOVA, the Mortgage dated March 29, 1999 executed by you, and by the Collateral and other collateral set forth on Exhibit A to the attached Schedule (the "Schedule"), dated the same date as this Note and made a part hereof. All of the terms contained in the Schedule are incorporated in full herein as if set forth in its entirety. This Note may be accelerated by us upon a payment default or upon another default under the Master Agreement or Mortgage.

TIME IS OF THE ESSENCE.

If you do not make a payment within ten (10) days after the date it is due, you will also pay us a late charge of ten percent (10%) of the amount past due. Your interest rate will be increased by four percent (4%) per annum, over and above your regular interest rate if payment is not made at the scheduled or accelerated maturity of this Note. You will also pay all of our costs of collection, including our reasonable attorney's fees and expenses. If we accelerate this Note, you will also owe a prepayment premium, as set forth in Exhibit A to the Master Agreement.

You waive diligence, presentment, formalities of demand, protest or notice of nonpayment or dishonor or any other notice as to this Note.

THIS NOTE IS GOVERNED BY THE SUBSTANTIVE LAWS (AND NOT THE CONFLICT OF LAWS PROVISIONS) OF THE STATE OF ARIZONA, THE STATE IN WHICH OUR OFFICE IS LOCATED IN WHICH FINAL APPROVAL OF THE TERMS AND CONDITIONS OF THIS NOTE OCCURRED AND FROM WHICH THE ORDER TO PAY THE LOAN FUNDS WAS MADE. YOU CONSENT TO THE JURISDICTION OF ANY FEDERAL OR STATE COURT LOCATED IN THE STATE OF ARIZONA. YOU WAIVE TRIAL BY JURY.

You represent to us that the proceeds of the loan evidenced by this Note are being used to finance (or refinance) your purchase of the Collateral described in the Schedule, and that the Collateral will only be used for business purposes.

The obligations of each of you under this Note shall be joint and several.

ADVANCED POLYMER SYSTEMS, INC.

ATTEST:

[SEAL]

By: /S/ Michael O'Connell

Name: /S/ Michael O'Connell

Title: Chief Financial Officer

Date: March 29, 1999

/S/Julian Stern

[Assistant] Secretary

APS ANALYTICAL STANDARDS, INC.

ATTEST:

[SEAL]

By: /S/ Michael O'Connell

Name: /S/ Michael O'Connell

Title: Chief Financial Officer

Date: March 29, 1999

/S/ Julian Stern

[Assistant] Secretary

PREMIER, INC.

ATTEST:

[SEAL]

By: /S/ Michael O'Connell

Name: /S/ Michael O'Connell

Title: Chief Financial Officer

Date: March 29, 1999

/S/ Julian Stern

[Assistant] Secretary

APS JOINT VENTURE CORP.

ATTEST:

[SEAL]

By: /S/ Michael O'Connell

Name: /S/ Michael O'Connell

Title: Chief Financial Officer

Date: March 29, 1999

/S/ Julian Stern

[Assistant] Secretary

SCHEDULE NO. 1 TO
MASTER LOAN AND SECURITY AGREEMENT

Schedule No. 1s dated March 29, 1999, (this "Schedule") to PROMISSORY NOTE NO. 1 and MASTER LOAN AND SECURITY AGREEMENT dated as of March 29, 1999 (the "Master Agreement") between ADVANCED POLYMER SYSTEMS, INC., a Delaware corporation, APS ANALYTICAL STANDARDS, INC., a California corporation, PREMIER, INC., a Connecticut corporation and APS JOINT VENTURE CORP., a Delaware corporation, each with its executive office and principal place of business at 123 Saginaw Drive, Redwood City, California 94063 (collectively, "you"); and FINOVA CAPITAL CORPORATION, a Delaware corporation with its executive office and principal place of business at 1850 North Central Avenue, Phoenix, Arizona 85004 ("we," "us", or "FINOVA").

1. OBLIGATION TO PAY. You are presently borrowing Four Million Dollars (\$4,000,000) from us. This borrowing is evidenced by your promissory note dated the same date as this Schedule in the amount of Four Million Dollars (\$4,000,000) (the "Note") to which this Schedule is attached and made a part thereof.

2. PAYMENTS (SUBJET TO ADJUSTMENT IN PARAGRAPH 3). You will repay the Loan, together with interest at the interest rate, in forty-eight (48) consecutive monthly payments of principal and interest each in the amount of \$107,120 (the 48th consecutive monthly payment is referred to as the "Final Payment"). These payments will be adjusted on the date we make the Loan to you as set forth in Paragraph 3.

The first monthly payment of principal and interest will be due on the date that we make the Loan to you. The second monthly payment of principal and interest will be due on the thirtieth (30th) day of the month succeeding the month that we make the Loan to you and the remaining payments will continue on the same day in each and every month thereafter through and including the date upon which the Final Payment is scheduled to be due (the "Maturity Date"). Any remaining amount that you owe us is due on the "Maturity Date."

If the date we make the Loan to you is not the thirtieth (30th) or the thirty-first (31st) day of the month, you will pay, on the thirtieth (30th) day of the month in which we make the Loan to you (in the case of making the Loan the 30th), interest only, at the interest rate, from the date we make the Loan to you to the twenty-ninth (29th) day of the same month. If the date we make the Loan to you is the thirty-first (31st), you will pay interest at the interest rate, from the date we make the Loan to you to the twenty-ninth (29th) day of the next following month.

The first monthly payment of principal and interest and the interim payment referred to above shall be payable on the date upon which we make the Loan to you and shall be withheld from the proceeds of the Loan.

3. INTEREST; INDEXING. The interest rate in your payments shown above is calculated at your regular rate of 8.70% per annum plus an "Index Rate" of 4.81%. The Index Rate means the highest yield, as published in THE WALL STREET JOURNAL of four-year United States Treasury Notes. Two-business days prior to the date we make the Loan to you, we will read THE WALL STREET JOURNAL to determine the final Index Rate. If the Index Rate is not published in THE WALL STREET JOURNAL, we will determine it from another reliable source. We will increase the payments set forth above in Paragraph 2 to reflect any increase in the Index Rate. We will give you notice of any increase as soon as we can. You will pay the increased payments unless we have made an obvious mistake in our calculations. Interest is calculated in advance using a 360-day year of twelve 30-day months.

4. PURPOSE OF LOAN; SECURITY INTEREST. You are making this borrowing to finance (or refinance) your purchase of the Equipment described in the attached Exhibit A to this Schedule. The Equipment, together with all other property described on the attached Exhibit A (including, without limitation, the Receivables and the Premises) is hereinafter referred to as the "Collateral." In order to secure all of the Obligations (as defined in the Master Agreement), you grant us a first lien on and security interest in the Collateral, as well as any additions, omissions, substitutions and proceeds of the Collateral. You also grant us a security interest in any leases and rentals of the Collateral. This security interest secures the Note. It also secures the full and timely payment and performance of all of your other Obligations to us, whether under the Master Agreement, any other agreement, loan or lease that you may have with us, or otherwise.

5. COLLATERAL ACCEPTANCE DATE. The Equipment has been delivered, installed and accepted prior to the date hereof. The Equipment is and at all times shall be located at 301 Laser Lane, Lafayette, Louisiana. All Receivables shall be deemed to be located at 123 Saginaw Drive, Redwood City, California.

6. TERMS OF MASTER AGREEMENT. The terms of the Master Agreement are made a part of this Schedule as if repeated in its entirety in this Schedule. Any declaration of default under the Master Agreement is a default under this Schedule and permits us to exercise all remedies provided by the Master Agreement.

7. JOINT AND SEVERAL LIABILITY. The indebtedness, liabilities and obligations of each Borrower under this Schedule shall be joint and several.

ADVANCED POLYMER SYSTEMS, INC.

ATTEST:

[SEAL]

By: /S/ Michael O'Connell

Name: /S/ Michael O'Connell

Title: Chief Financial Officer

Date: March 29, 1999

/S/Julian Stern

[Assistant] Secretary

APS ANALYTICAL STANDARDS, INC.

ATTEST:

[SEAL]

By: /S/ Michael O'Connell

Name: /S/ Michael O'Connell

Title: Chief Financial Officer

Date: March 29, 1999

/S/ Julian Stern

[Assistant] Secretary

PREMIER, INC.

ATTEST:

[SEAL]

By: /S/ Michael O'Connell

Name: /S/ Michael O'Connell

Title: Chief Financial Officer

Date: March 29, 1999

/S/ Julian Stern

[Assistant] Secretary

APS JOINT VENTURE CORP.

ATTEST:

[SEAL]

By: /S/ Michael O'Connell

Name: /S/ Michael O'Connell

Title: Chief Financial Officer

Date: March 29, 1999

/S/ Julian Stern
[Assistant] Secretary

EXHIBIT A TO SCHEDULE NO. 1

Collateral

All of the following property, in each case, whether now existing or hereafter arising, now owned or hereafter acquired, wherever located:

(a) all of your whether now owned or hereafter acquired machinery, equipment, furniture and fixtures (collectively, the "Equipment") located at your premises at 301 Laser Lane, Lafayette, Louisiana, more particularly described on the legal description attached hereto (the "Premises");

(b) all of your whether now owned or hereafter acquired or created accounts, accounts receivables, contract rights, trademarks, copyrights, licenses, license agreements, general intangibles, chattel paper, instruments, documents and all other forms of obligations at any time owing to you, including without limitation, all payments due and to become due to you and all of your right to receive such payments under the Development and License Agreement effective April 14, 1992 between Advanced Polymer Systems, Inc. and Ortho Pharmaceutical Corporation (collectively, the "Receivables");

(c) the Premises and all improvements now or hereafter located therein and thereon (this Collateral and our rights with respect thereto will be more particularly set forth in a Mortgage to be executed by you in connection with the Master Agreement;

(d) all substitutions, replacements, attachments and accessions to all of the foregoing; and

(e) all products and proceeds of all of the foregoing, including insurance proceeds.

Contemporaneously herewith, we will order written appraisals of the Equipment and the Premises and all such improvements located thereon, said appraisals to be performed by outside appraisers, selected by us. We will perform and complete all environmental due diligence as set forth in the Commitment. All costs and expenses incurred in connection with each such appraisals and all such environmental due diligence shall be borne by you. If, upon completion of said appraisals and environmental due diligence (a) we determine, in our sole and absolute discretion, that the results of said appraisals and environment due diligence are satisfactory to us, and (b) we receive a title insurance policy covering the Premises, in amount and otherwise in form and substance satisfactory to us, including, without limitation, showing the absences of any an all liens and other encumbrances covering the Premises, and (c) you are not then in default under the Master Agreement, the Note, the Schedule or any other agreement, instrument, lease or other documents with us all of the foregoing being hereinafter referred to as "Release Conditions"), we may, in our sole and absolute discretion, release any or all of our liens on and security interest in and to the Receivables. Notwithstanding the foregoing, upon satisfaction of all of the Release Conditions, if the appraisals referred to above provide that the orderly liquidation value of the Collateral exceeds \$4,000,000, we will release our lien on and security interest n certain Collateral selected by us in our sole and absolute discretion so that the orderly liquidation value of the remaining Collateral does not exceed \$4,000,000.