

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM S-3
REGISTRATION STATEMENT UNDER
THE SECURITIES ACT OF 1933

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 no.)

123 Saginaw Drive, Redwood City, California 94063 (650) 366-2626

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Michael O'Connell
Executive Vice President and
Chief Financial Officer
Advanced Polymer Systems, Inc.
123 Saginaw Drive
Redwood City, California 94063
(650) 366-2626

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copy to:
Richard A. Peers, Esq.
Heller Ehrman White & McAuliffe
525 University Avenue
Palo Alto, California 94301-1908
(650) 324-7000 (phone)
(650) 324-0638 (fax)

Approximate date of commencement of proposed sale to the public:
As soon as practicable after the effective date of this Registration Statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, as amended, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box. X

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act of 1933, as amended, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act of 1933, as amended, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box.

Title of Shares to be Registered	Amount to be Registered	Proposed Maximum Offering Price per Share (1)	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Common Stock	200,000	\$4.75	\$950,000	\$264.10

(1) Estimated in accordance with Rule 457(c) solely for the purpose of computing the amount of the registration fee based on the average of the high and low prices of the company's common stock on the Nasdaq National Market on December 28, 1998.

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment that specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until this Registration Statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

PROSPECTUS (Subject to Completion) Dated December 29, 1998

ADVANCED POLYMER SYSTEMS, INC.
up to 200,000 Shares of Common Stock

Up to 200,000 shares may be offered and sold from time to time by the security holder of the company identified in this prospectus. See "Selling Security Holder." The selling security holder was issued up to 200,000 shares under a Settlement Agreement and Release, dated December 22, 1998, between the company and the selling security holder in connection with the settlement of a lawsuit between them. The selling security holder will receive all of the proceeds from the sale of the shares and will pay all underwriting discounts and selling commissions, if any, applicable to the sale of the shares. We will pay the expenses of registration of the sale of the shares.

On December 28, 1998, the company had 19,993,311 shares of its common stock issued and outstanding. Our common stock trades on the Nasdaq National Market under the symbol "APOS". On December 28, 1998, the last reported sale price of the common stock on the Nasdaq National Market was \$---- per share.

Beginning on page 4, we have listed several "RISK FACTORS" which you should consider. You should read the entire prospectus carefully before you make your investment decision.

The Securities and Exchange Commission and state regulatory authorities have not approved or disapproved these securities, or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The Date of this Prospectus is December --, 1998

You should rely only on the information contained in this prospectus. We have not authorized anyone to provide you with information different from that contained in this prospectus. The selling security holder is offering to sell, and seeking offers to buy, shares of Advanced Polymer Systems, Inc. common stock only in jurisdictions where offers and sales are permitted. The information contained in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or of any sale of the shares.

In this prospectus, the "company," the "Registrant," "Advanced Polymer Systems," "we," "us," and "our" refer to Advanced Polymer Systems, Inc.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly, and current reports, proxy statements, and other documents with the Securities and Exchange Commission (the "SEC"). You may read and copy any document we file at the SEC's public reference

room at Judiciary Plaza Building, 450 Fifth Street, N.W., Room 1024, Washington, D.C. 20549. You should call 1-800-SEC-0330 for more information on the public reference room. The SEC maintains an internet site at <http://www.sec.gov> where certain information regarding issuers (including Advanced Polymer Systems) may be found.

This prospectus is part of a registration statement that we filed with the SEC (Registration No. -----). The registration statement contains more information than this prospectus regarding Advanced Polymer Systems and its common stock, including certain exhibits and schedules. You can get a copy of the registration statement from the SEC at the address listed above or from its internet site.

DOCUMENTS INCORPORATED BY REFERENCE

The SEC allows us to "incorporate" into this prospectus information we file with the SEC in other documents. This means that we can disclose important information to you by referring to other documents that contain that information. The information may include documents filed after the date of this prospectus which update and supersede the information you read in this prospectus. We incorporate by reference the documents listed below, except to the extent information in those documents is different from the information contained in this prospectus, and all future documents filed with the SEC under Sections 13(a), 13(c), 14, or 15(d) of the Securities Exchange Act of 1934 until we terminate the offering of these shares.

SEC Filing (File No. -----) -----	Period/Filing Date -----
Annual Report on Form 10-K	Year ended December 31, 1997
Quarterly Reports on Form 10-Q	Quarter ended March 31, 1998
	Quarter ended June 30, 1998
	Quarter ended September 30, 1998
Registration Statement on Form 8-A describing the common stock	Filed on August 7, 1987

You may request a copy of these documents, at no cost, by writing to:

Advanced Polymer Systems, Inc.
123 Saginaw Drive
Redwood City, California 94063
Attention: Investor Relations
Telephone: (650) 366-2626

FORWARD-LOOKING INFORMATION

Statements made in this prospectus or in the documents incorporated by reference herein that are not statements of historical fact are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). A number of risks and uncertainties, including those discussed under the caption "Risk Factors" below and the documents incorporated by reference herein could affect such forward-looking statements and could cause actual results to differ materially from the statements made.

RISK FACTORS

You should consider carefully the following risk factors, along with other information contained or incorporated by reference in this prospectus, in deciding whether to invest in our securities. These factors, among others, may cause actual results, events or performances to differ materially from those expressed in any forward-looking statements we made in this prospectus.

Risks Relating to History of Losses. Historically we have not been profitable. We have been profitable in certain recent quarters, and have had growth in revenues, derived principally from product sales, license fees and royalties. However, we may not be able to continue to generate significant future revenues or continue to sell products at a profit.

Risks Relating to Need for Additional Funds. We anticipate that our existing capital resources will permit us to meet our capital and operational requirements through at least the end of 1999. However, we base this expectation on our current operating plan which can change as a

result of many factors. If our costs are higher than expected or revenues do not meet expectations, we may have to generate additional funds to sustain and develop our business, including through joint ventures, licensing and debt and equity financings.

If such additional funding is required, but is unavailable on commercially reasonable terms, we would have to significantly reduce operating expenses, by decreasing spending on:

- outside clinical programs;
- variety of other discretionary external expenditures.

These events could have a material adverse effect on the company.

Risks Relating to New Technology. Our Microsponge(R) products are based on relatively new technologies. Although we have been commercially successful with numerous ingredients and agents, such as acne creams, sunscreens and moisturizers, commercialization of products utilizing our Microsponge delivery systems is still in its early stages. We may not be able to continue to successfully commercialize our Microsponge products, which would have an adverse on the Company.

Risks Relating to Marketing. We have been marketing our Microsponge products independently. In addition, we have entered into several collaborative agreements with other companies that have greater marketing expertise and/or financial strength. These collaborative arrangements may not prove successful in marketing products in the future. Some of our collaborative partners have limited history in marketing certain over-the-counter drug and toiletry products, and they may not be able to continue to successfully market products produced by the Company or others.

Risks Relating to Dependence on Key Employees. Our developments to date and in the future depend greatly on the efforts of key management and technical employees. The loss of any of these key contributors could have an adverse impact on the progress of our business.

Risks Relating to Government Regulations. Some of our products are subject to regulation by numerous governmental authorities in the United States and by comparable agencies in other countries where our products may be distributed. The regulatory process includes preclinical testing and clinical trials. The process is necessary to establish product safety and efficacy, and it can be very time consuming and costly. Furthermore, even after such time and expenditure, regulatory agency approvals may not be obtained. Moreover, if regulatory agency approval of a product is granted, such approval may be

- limited to certain uses of the product;
- temporary, as marketed product and its manufacture are subject to continued review by regulatory authorities.

Personal care products are not currently subject to active regulation by the FDA in the same manner as pharmaceutical products. Nonetheless, more extensive regulation could occur in the future. Such regulation could impose additional costs or slow the introduction of personal care products utilizing our delivery systems.

Risks Relating to Competition. Other companies are developing products based on similar technologies for cosmetic, therapeutic and industrial applications. Technological developments are expected to occur at a rapid pace and may prove superior to ours. We are in competition with other companies that possess:

- greater financial and technical resources,
- greater manufacturing and marketing capabilities,
- more experience in testing and obtaining any necessary regulatory approval.

Manufacturing Risks. Products utilizing our Microsponge delivery systems must be manufactured at a competitive cost in far greater quantities than we can currently produce. We have the following facilities:

- a manufacturing facility in Lafayette, Louisiana;
- a research laboratory and pilot plant facilities in Lafayette, Louisiana;

Our current manufacturing capacity, depending upon the application, is currently 1,000,000 to 3,000,000 pounds a year. However, successful commercialization of certain products may require manufacturing in quantities exceeding our current capacity.

Risks Relating to Patents and Trade Secrets. Patent protection generally has been important in the pharmaceutical and cosmetic industry. The patents owned or controlled by us may not be able to:

- provide commercially significant protection of our technology;
- ensure that the Company will not infringe valid patents of others.

Our patents have not been tested in court, and the validity and scope of

our proprietary rights could be challenged.

We have also received foreign patents. The patent laws of foreign countries differ from those of the United States, and the degree of protection afforded by any foreign patents may be different from that available under U.S. patent laws.

We also rely on trade secrets and proprietary know-how. We try to protect them by confidentiality agreements with our collaborators, employees and consultants. However, if those agreements are breached, we may not have adequate remedies for such breach. Furthermore, our trade secrets and proprietary know-how may otherwise become known or be discovered by competitors.

Stock Price Risks. The market price of our Common Stock has been and may continue to be highly volatile. Future events, many of which will be beyond the control of the Company, may have a significant impact on the market price of the Company's Common Stock. The following events could have a depressive effect on the market price of the Company's Common Stock:

- quarterly fluctuations in revenues and financial results;
- future sales of Shares by the Selling Stockholder or by other current stockholders;
- future sales of Shares by option holders and warrant holders who exercise Company stock options or warrants.

These events could have a material adverse effect on the company.

Risks Relating to Reliance on Collaborative Partners. We have entered into collaborative agreements with certain major corporations pursuant to which such companies are entitled to certain product and marketing rights. We also rely, at least in part, on additional collaborative agreements to develop and commercialize certain future products. However, we may not be able to negotiate acceptable collaborative agreements in the future. Moreover, our existing collaborative agreements or such future collaborative agreements may not be successful.

Risks Relating to Anti-Takeover Provisions. On August 19, 1996, the Board of Directors has adopted a Stockholders Rights Plan, which allows stockholders to purchase Company Stock at discount in the event of tender offer or when any person acquires 20% or more of the outstanding Common Stock of the Company, subject to certain exceptions. The existence of this anti-takeover provision may have the effect of:

- delaying, deferring or preventing a change of control of the Company;
- making the Company less attractive to any potential acquiror;
- causing stockholders to receive less for their shares than would otherwise be available in the event of a takeover attempt.

Risks Relating to the Year 2000. Year 2000 ("Y2K") exposure is the result of computer programs using two instead of four digits to represent the year. These computer programs may erroneously interpret dates beyond the year 1999, which could cause system failures or other computer errors, leading to disruptions in operations. We have begun to develop a program to limit or eliminate Y2K exposures. This program will try to accomplish the following:

- identify those systems, applications and third-party relationships from which we have exposure to Y2K disruptions in operations;
- develop and implement action plans to achieve Y2K compliance in all areas prior to the end of 1999;
- develop contingency plans which would be implemented should Y2K compliance not be achieved in order to minimize disruptions in operations;
- test each major area of exposure to ensure compliance.

We have not yet completed this program. We expect to complete it by the end of 1999, though we may not be successful in doing so.

Based on current estimates, we expect the total cost of our Y2K program will be less than \$650,000 (approximately \$510,00 of which has been incurred to date). The estimate may change materially as we continue to review and audit the results of the implemented program.

Failure to complete all necessary procedures by the Year 2000 may have a material adverse impact on the operations of the Company. Failure of third parties, such as customers and suppliers, to resolve year 2000 problems in their systems would also have a material adverse impact on the Company.

SELLING SECURITY HOLDER

The following table sets forth the name of the selling security holder,

the maximum number of shares of common stock owned beneficially by the selling shareholder as of December 28, 1998 and the maximum number of shares that may be offered pursuant to this prospectus. This information is based upon information provided by the selling security holder.

Selling Security Holder -----	Common Stock Beneficially Owned Prior to Offering(1) -----		Common Stock to be sold -----	Common Stock Beneficially owned After Offering(1) -----	
	Number	Percent		Number	Percent
Biosource Technologies, Inc	200,000	1%	200,000	--	--
TOTALS	200,000	1	200,000	--	--
	=====		=====		

(1) Applicable percentage of ownership is based on 19,993,311 shares of common stock outstanding as of December 28, 1998.

PLAN OF DISTRIBUTION

All or a portion of the shares offered hereby by the selling security holder may be delivered and/or sold in transactions from time to time on the over-the-counter market, on the Nasdaq National Market (or any other exchange on which the shares may be listed), in negotiated transactions, or a combination of such methods of sale, at market prices prevailing at the time, at prices related to such prevailing prices or at negotiated prices and/or may also be used to cover any short positions previously established. The selling security holder may effect such transactions by selling to or through one or more broker-dealers, and such broker-dealers may receive compensation in the form of underwriting discounts, concessions or commissions from the selling security holder. The selling security holder and any broker-dealers that participate in the distribution may under certain circumstances be deemed to be "underwriters" within the meaning of the Securities Act, and any commissions received by such broker-dealers and any profits realized on the resale of shares by them may be deemed to be underwriting discounts and commissions under the Securities Act. The selling security holder may agree to indemnify such broker-dealers against certain liabilities, including liabilities under the Securities Act. Additionally, if the selling security holder desires to sell 20,000 or more of the shares to the public, it will so inform the Company and provide the Company up to 5 days to find a block buyer for such shares.

Any broker-dealer participating in such transactions as agent may receive commissions from the selling security holder (and, if they act as agent for the purchaser of such shares, from such purchaser). Broker-dealers may agree with the selling security holder to sell a specified number of shares at a stipulated price per share, and, to the extent such a broker-dealer is unable to do so acting as agent for the selling security holder, to purchase as principal any unsold shares at the price required to fulfill the broker-dealer commitment to the selling security holders. Broker-dealers who acquire shares as principal may thereafter resell such shares from time to time in transactions (which may involve crosses and block transactions and which may involve sales to and through other broker-dealers, including transactions of the nature described above) in the over-the-counter market, in negotiated transactions or otherwise at market prices prevailing at the time of sale or at negotiated prices, and in connection with such resales may pay to or receive from the purchasers of such shares commissions computed as described above.

Under applicable rules and regulations under the Exchange Act, any person engaged in the distribution of the resale of shares may not simultaneously engage in market making activities with respect to the common stock of the company for a period of two business days prior to the commencement of such distribution. In addition and without limiting the foregoing, the selling security holders will be subject to applicable provisions of the Exchange Act, and the rules and regulations thereunder, including, without limitation, Regulation M, which provisions may limit the timing of purchases and sales of shares of the company's common stock by the selling security holders.

The selling security holder will pay all commissions, transfer taxes, and other expenses associated with the sale of securities by them. The shares offered hereby are being registered pursuant to contractual obligations of

the company, and the company has paid the expenses of the preparation of this prospectus. We have not made any underwriting arrangements with respect to the sale of shares offered hereby.

USE OF PROCEEDS

We will not receive any of the proceeds from the sale of the shares by the selling security holders.

LEGAL MATTERS

The validity of the shares offered hereby will be passed upon for us by Heller Ehrman White & McAuliffe, Palo Alto, California, counsel to the company. Julian N. Stern, the Secretary of the company, is the owner of 179,000 shares of common stock and is the sole stockholder and employee of a professional corporation that is a partner of Heller Ehrman White & McAuliffe.

EXPERTS

The financial statements of Advanced Polymer Systems, Inc. which appear in its Annual Report (Form 10-K) for the year ended December 31, 1997 have been audited by KPMG Peat Marwick LLP, independent auditors, as set forth in their report thereon and included therein and incorporated herein by reference. Such financial statements are incorporated herein by reference in reliance upon such report given upon the authority of such firm as experts in accounting and auditing.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses Of Issuance And Distribution.

The following table sets forth various expenses in connection with the sale and distribution of the securities being registered. All of the amounts shown are estimates except for the Securities and Exchange Commission Registration Fee.

Securities and Exchange Commission Registration Fee	\$ 264.10
Accounting Fees	5,000.00
Legal Fees and Disbursements	10,000.00
Miscellaneous	735.90
Total	\$16,000.00 =====

Item 15. Indemnification Of Officers And Directors.

The registrant has the power to indemnify its officers and directors against liability for certain acts pursuant to Section 145 of the General Corporation Law of the State of Delaware. Section B of Article VI of the registrant's Certificate of Incorporation provides:

"(1) Right to Indemnification. Each person who was or is made a party or is threatened to be made a party to or is involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative (hereinafter a "proceeding"), by reason of the fact that he or she, or a person of whom he or she is the legal representative, is or was a director or officer, of the Corporation or is or was serving at the request of the Corporation, as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust or other enterprise, including service with respect to employee benefit plans, whether the basis of such proceeding is alleged action in an official capacity as a director, officer, employee or agent or in any other capacity while serving as a director, officer, employee or agent, shall be indemnified and held harmless by the Corporation to the fullest extent authorized by the General Corporation Law of the State of Delaware, as the same exists or may hereafter be amended (but, in the case of any such amendment, only to the extent that such amendment permits the Corporation to provide broader indemnification rights than said law permitted the Corporation to provide prior to such amendment), against all expense, liability and loss (including attorneys' fees, judgments, fines, ERISA excise taxes or penalties and amounts paid or to be paid in settlement) reasonably incurred or suffered by such person in connection therewith and such indemnification shall continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of his or her heirs, executors and administrators; provided, however, that, the Corporation shall indemnify any such person seeking indemnification in connection with a proceeding (or part thereof) initiated by such person only if such proceeding (or part thereof) was authorized by the board of directors of the Corporation. The right to indemnification conferred in this Section B shall be a contract right and shall include the right to be

paid by the Corporation the expenses incurred in defending any such proceeding in advance of its final disposition; provided, however, that, if the General Corporation Law of the State of Delaware requires, the payment of such expenses incurred by a director or officer in his or her capacity as a director or officer (and not in any other capacity in which service was or is rendered by such person while a director or officer, including, without limitation, service to an employee benefit plan) in advance of the final disposition of a proceeding, shall be made only upon delivery to the Corporation of an undertaking, by or on behalf of such director or officer, to repay all amounts so advanced if it shall ultimately be determined that such director or officer is not entitled to be indemnified under this Section or otherwise. The Corporation may, by action of its Board of Directors, provide indemnification to employees and agents of the Corporation with the same scope and effect as the foregoing indemnification of directors and officers.

(2) Non-Exclusivity of Rights. The right to indemnification and the payment of expenses incurred in defending a proceeding in advance of its final disposition conferred in this Section B shall not be exclusive of any other rights which any person may have or hereafter acquire under any statute, provisions of this Certificate of Incorporation, Bylaw, agreement, vote of stockholders or disinterested directors or otherwise.

(3) Insurance. The Corporation may maintain insurance, at its expense, to protect itself and any director, officer, employee or agent of the Corporation or another corporation, partnership, joint venture, trust or other enterprise against any such expense, liability or loss, whether or not the Corporation would have the power to indemnify such person against such expense, liability or loss under Delaware General Corporation Law." Registrant maintains directors' and officers' liability insurance in the amount of \$5,000,000 which covers civil liabilities. Such insurance helps the Registrant to attract qualified officers and directors, by providing a means for the Company to pay the costs and expenses involved in the event civil litigation is brought against of one of the Registrant's officers or directors.

Item 16. Exhibits.

EXHIBIT	DESCRIPTION
5	-- Opinion of Heller, Ehrman, White & McAuliffe
23.1	-- Consent of Heller, Ehrman, White & McAuliffe (filed as part of Exhibit 5)
23.2	-- Consent of KPMG Peat Marwick LLP
24	-- Power of Attorney (See Page II-4)

Item 17. Undertakings.

A. The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement;

(i) To include any prospectus required by section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the Registration Statement;

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the Registration Statement;
Provided, however, that paragraphs (i) and (ii) shall not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed by the registrant pursuant to section 13 or section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the Registration Statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new Registration Statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

B. That, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to section 13(a) or section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offering therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

C. 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 provisions described under Item 15 above, 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 against the Registrant 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.

(4) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement to include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized in Redwood City, State of California, on the 29th day of December, 1998.

ADVANCED POLYMER SYSTEMS, INC.

By: /S/ Michael O'Connell

Michael O'Connell
Chief Financial Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints John J. Meakem, Jr., Michael P.J. O'Connell, or either of them, with the power of substitution, her or his attorney in fact, to sign any amendments to this Registration Statement (including post-effective amendments), and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that each of said attorney-in-fact, or his substitute or substitutes, may do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed below 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	December 29, 1998 -----
/S/ Michael O'Connell ----- Michael O'Connell	Executive Vice President, Chief Administrative Officer and Chief Financial Officer	December 29, 1998 -----
/S/ Carl Ehmann ----- Carl Ehmann	Director	December 29, 1998 -----
/S/ Jorge Heller ----- Jorge Heller	Director	December 29, 1998 -----
/S/ Peter Riepenhausen ----- Peter Riepenhausen	Director	December 29, 1998 -----
/S/ Toby Rosenblatt ----- Toby Rosenblatt	Director	December 29, 1998 -----
/S/ Gregory H. Turnbull ----- Gregory H. Turnbull	Director	December 29, 1998 -----
/S/ C. Anthony Wainwright ----- C. Anthony Wainwright	Director	December 29, 1998 -----

/S/ Dennis Winger

Director

December 29, 1998

Dennis Winger

ADVANCED POLYMER SYSTEMS, INC.

EXHIBIT INDEX

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Advanced Polymer Systems, Inc.
123 Saginaw Drive
Redwood City, California 94063

Registration Statement on Form S-3

Ladies and Gentlemen:

We have acted as counsel to Advanced Polymer Systems, Inc., a Delaware corporation (the "Company"), in connection with the Registration Statement on Form S-3 (the "Registration Statement") which the Company proposes to file with the Securities and Exchange Commission on December 29, 1998 for the purpose of registering under the Securities Act of 1933, as amended, 200,000 shares of its Common Stock, par value \$.01 (the "Shares"). We have assumed the authenticity of all records, documents and instruments submitted to us as originals, the genuineness of all signatures, the legal capacity of natural persons and the conformity to the originals of all records, documents and instruments submitted to us as copies.

In rendering our opinion, we have examined the following records, documents and instruments:

- (a) The Certificate of Incorporation of the Company, certified by the Delaware Secretary of State as of November 18, 1998, and certified to us by an officer of the Company as being complete and in full force as of the date of this opinion;
- (b) The Bylaws of the Company certified to us by an officer of the Company as being complete and in full force and effect as of the date of this opinion;
- (c) A Certificate of an officer of the Company (i) attaching records certified to us as constituting all records of proceedings and actions of the Board of Directors, including any committee thereof, and stockholders of the Company relating to the Shares, and the Registration Statement, and (ii) certifying as to certain factual matters;
- (d) The Registration Statement;
- (e) The Settlement Agreement and Release between Biosource Technologies, Inc. ("Biosource") and the Company, dated December 22, 1998; and
- (f) A letter from First National Bank of Boston, the Company's transfer agent, dated December 23, 1998, as to the number of shares of the Company's Common Stock that were outstanding on December 23, 1998.

This opinion is limited to the federal law of the United States of America and the General Corporation Law of the State of Delaware, and we disclaim any opinion as to the laws of any other jurisdiction. We further disclaim any opinion as to any other statute, rule, regulation, ordinance, order or other promulgation of any other jurisdiction or any regional or local governmental body or as to any related judicial or administrative opinion.

Based upon the foregoing and our examination of such questions of law as we have deemed necessary or appropriate for the purpose of this opinion, and assuming that (i) the Registration Statement becomes and remains effective during the period when the Shares are offered and issued, (ii) the full consideration stated in the Settlement and Release Agreement is paid for each Share and that such consideration in respect of each Share includes payment of cash or other lawful consideration at least equal to the par value thereof, (iii) appropriate certificates evidencing the Shares are executed and delivered by the Company, and (iv) all applicable securities laws are complied with, it is our opinion that when issued by the Company, in the manner provided in the Settlement and Release Agreement and the Registration Statement, the Shares will be legally issued, fully paid and nonassessable.

This opinion is rendered to you in connection with the Registration Statement and is solely for your benefit. This opinion may not be relied upon by you for any other purpose, or relied upon by any other person, firm, corporation or other entity for any purpose, without our prior written consent. We disclaim any obligation to advise you of any change of law that occurs, or any facts of which we may become aware, after the date of this opinion.

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement.

Very truly yours,

CONSENT OF KPMG PEAT MARWICK LLP

The Board of Directors
Advanced Polymer Systems, Inc.:

We consent to the use of our report incorporated herein by reference and to the reference to our firm under the heading "Experts" in the prospectus.

KPMG Peat Marwick LLP

San Francisco, California
December 28, 1998