

## National Chemical Technician Award Candidate Form

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**Candidate information**

**Name:** Derek Pham **Title:** Chemistry Tech  
**Company name:** Abbott Medical Optics Inc.  
**Complete work address:** 1700 E. St. Andrew Place  
 Santa Ana CA 92705  
**Work phone:** 714-247-8732 **Email:** derek.pham@amo.abbott.com

**Candidate's immediate supervisor's information**

**Supervisor's name:** Can Hu, Ph.D **Supervisor's title:** Research Scientist  
**Work Phone:** 714-247-8535 **Email:** can.hu@amo.abbott.com

**Nominator's information**

**Nominator's name:** Can Hu, Ph.D **Nominator's title:** Research Scientist  
**Work Phone:** 714-247-8535 **Email:** can.hu@amo.abbott.com

**Candidate Eligibility**

All three boxes in the Eligible column must be checked for candidate to be eligible.

- |                                                                                                                                                        | <b>Eligible</b>                         | <b>Ineligible</b>            |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|------------------------------|
| 1. Is the candidate a chemistry-based laboratory technician, process technician, operator, analyst, or other applied chemical technology professional? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No  |
| 2. Has the candidate been employed for at least five years as an applied chemical technology professional?                                             | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No  |
| 3. Is the candidate currently a member of the Committee on Technician Affairs Executive Board and/or Advocacy & Public Relations Subcommittee?         | <input checked="" type="checkbox"/> No  | <input type="checkbox"/> Yes |

**Candidate's contribution in six areas of award criteria**

Make space as necessary under each category. Total packet, including letter(s) of recommendation, must not exceed 6 pages, minimum 10-point font. Do not include proprietary, confidential, or private information.

**Technical Achievements (worth 60%)**

Derek pham has worked in the chemistry, R&D of AMO as a lab technician for the past four years with excellent performance. Prior joining chemistry, R&D, he worked in the prototype lab of AMO as technician focused on monomer purification, sheet casting and lens molding. His initial assignment in chemistry, R&D was to evaluate properties of silicone gel from various vendors and to select the best candidate for our Internal product application. He mastered sophisticated equipments such as DMA (Dynamic Mechanical Analyzer), Rheometer (AR2000EX) FTIR and Atago Refractometer, etc, in a short period of time and generated a lot of reliable data.

When company decided to develop our own In-house material to meet our products requirements, Derek developed an unique purification method to purify in-house synthesized silicone fluid. The amount of extractable by Soxhlet extraction reduced significantly from ~25% to ~10% using material made of this newly developed purification method when compared to the other purification methods. The amount of extractables is a very critical factor in our material and product design and this important discovery makes our future new product has significant advantages over product from other competitors.

Derek followed the instructions and performed the work carefully. He asked the questions when he had doubt and made suggestions as needed. He developed a systematic way of evaluating multiple parameters by grouping key parameters together, therefore, a significant amount of material was saved with the same amount of data obtained. By adapting this new approach, we saved at least 60% of raw material if performed these experiments individually.

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Derek is also able to apply the knowledge that he acquired in the prototype lab to his new position. He developed process of molding lens using in-house developed materials. By modifying the processing and formulation parameters, he prepared lens with excellent image quality after extensive Soxhlet extraction. These lens also had excellent mechanical properties to pass small inclusion size and still maintain the same image quality.

In summary, Derek demonstrated his talents in chemistry not only in routine work, but also in creative thinking and actions. He followed the assignments and performed extra experiments to make new discovery and confirm the observation. He deserves to be considered as a candidate for the National Chemical Technician Award.

**Other (Considered together to make up the remaining 40%)****Leadership/Mentoring (1-15%)**

Derek Pham provided constant training to other technicians in the chemistry and prototype lab about new procedures. He taught the material mixing technique, fluid filtration method, instrument operation instruction, and molding operation. He conducted these trainings not only by talking and demonstration, but also by observing the trainees operating. He would like to make sure all his trainees were fully understood the concept as well as actual operation. Sometimes, he also reminded the scientist about certain details which had been neglected.

**Number of communications/publications (1-5%) Please do not include titles.**

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**External publications, presentations, patents (1-5%)**

1 publication 35<sup>th</sup> Annual Meeting of the Society for Biomaterials 2011 (ISBN 978-1-61782-560-6)  
Title: "Design of Silicone Materials for Ophthalmic Application"

1 U.S. Patent Application Publication US2009/0164009 A1 Jun. 25, 2009  
Title: "Soft Silicone Materials for Ophthalmic Application"

**Internal presentations, publications (1-5%) Include SOPs, presentation to teams, etc.**

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5 training presentations to team members  
3 Records of Invention in legal department of AMO

**Contribution to quality, safety, and other initiatives (1-5%)**

Derek is quality oriented technician. He calibrates the instrument every time before using it and keeps the records of calibration for reference. He also retained samples in a organized way so we could retrieve samples easily.

He is also a safety conscious technician. He often cleans the lab without request and checks the eye-wash station and emergency supply regularly.

The most unique characteristic of Derek is his perseverance to the fact. He doesn't give up easily.

**Awards (1-5%)**

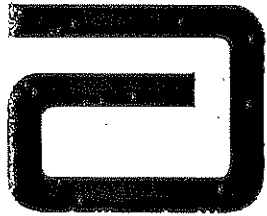
10 years service award of AMO 2010.

**Professional and community activities (ACS, AIChE, outreach, etc.) (1-10%)**

Derek joins the meditation group in his community which provides physical and mental support to all age group, especially for aged seniors. He also provides the transportation to those with needs.

Abbott Medical Optics Inc.  
1700 E. St. Andrew Place  
Santa Ana, CA 92705

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September 28, 2011

Mark O'Brien  
Staff Liaison, ACS Committee on Technician Affairs (CTA)  
Office of Technician Education Resources  
American Chemical Society

Dear Mr. O'Brien,

It gives me great pleasure to write this letter of recommendation for Derek Pham about his candidacy for the ACS National Chemical Technician Award. Derek has worked for me for the last 4 plus years with excellent working attitude and performance.

His original assignment was to test materials obtained from various vendor sources to characterize their properties using many sophisticated instruments. By demonstrating his ability of mastering these instruments, his responsibilities increased quickly and included material purification, sample preparation and final properties evaluation. His creative thinking made a significant contribution to the in-house material development and resulted in 3 records of invention and a couple of other publications.

Derek is a very reliable worker. He listens carefully about the working instructions from scientists and engineers and provides suggestions as appropriate. He has shown his dedication by being willing to come (or stay) beyond his normal working hours to assure a job gets completed in time. He maintains his lab notebook in a timely manner.

He is also a team player and works well with his coworkers. He has taught them various lab skills and methods of operating the various test instruments. He maintains and cleans the lab regularly and performs safety inspections of the lab constantly.

Finally, I would like to mention about the most important characteristic, his honesty. While he is an excellent technician, if he makes a mistake, he discusses it openly with the supervisor without any reservations and makes the necessary corrections. It is so important to see the staff with honesty to avoid any unnecessary complications in the future. Therefore, I highly recommend Derek Pham to be the National Chemical Technician Award candidate. Your favorable consideration is highly appreciated.

Regards

Can Hu, Ph.D., FBSE  
Research Scientist

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Abbott Medical Optics Inc.  
1700 E. St. Andrew Place  
Santa Ana, CA 92705

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September 28, 2011

Mark O'Brien  
Staff Liaison, ACS Committee on Technician Affairs (CTA)  
Office of Technician Education Resources  
American Chemical Society  
1155 Sixteenth St. NW  
Washington, DC 20036

Dear Mr. O'Brien,

I would like to support the nomination of Derek Pham for consideration to the National Chemical Technician Award. Derek has been a constant and dedicated resource in our laboratory. His willingness to take on many tasks without complaint and juggling his multiple responsibilities to complete them is a great encouragement to all in the lab.

Derek has the high degree of precision required for producing the research formulations that are under investigation. He has also offered a number of efficiency and cost saving improvements to the fabrication and testing procedures.

Derek also interacts well with the scientists and technicians in the lab. Recently Derek has been asked to train a technician from my group that is on loan to the chemistry lab. He has graciously demonstrated the methods for formulating the research materials and trained my technician on the use of the laboratory equipment.

Regards,

Edward Geraghty  
Technical Leader, Program Engineer III,  
Abbott Medical Optics Inc.

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Santa Ana, CA 92705

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September 29, 2011

Mark O'Brien  
Staff Liaison, ACS Committee on Technician Affairs (CTA)  
Office of Technician Education Resources  
American Chemical Society

Dear Mr. O'Brien,

I am writing this letter to recommend Derek Pham for the ACS National Chemical Technician Award. I have had the privilege of working closely with Derek on a high-visibility project over the last year and I am confident that he is deserving of your recognition.

In our R&D group, Derek has demonstrated a profound versatility in his job function. He is responsible for executing complex wet chemistry prep and formulation work, performing sensitive analytical procedures and providing support for pilot-manufacturing. He carries out his role with a remarkably high level of professionalism and dedication.

Derek's patience and ability to make careful observations have helped the team to identify unexpected problems and potential solutions. This is important to us because we rely on technicians like Derek to independently volunteer relevant information. His achievements have contributed significant progress towards project goals.

In addition to his strong technical competence, Derek often facilitates effective communication in a multi-cultural environment where English is not always the primary language of co-workers. He continually demonstrates leadership among his peers in a manner that encourages cooperation and sustains motivation, which is critical to success in our fast-paced culture.

Derek is a well-respected and greatly appreciated member of our technical team. He has a unique combination of talents and traits that distinguish him from his peers and embody the characteristics of a chemical technician worthy of your recognition. I highly recommend Derek Pham as a candidate for the National Chemical Technician Award.

All the best,

Daniel Urbaniak, Ph.D., MBA  
Principal Scientist, Technical Team Leader

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US 20090164009A1

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(19) **United States**

(12) **Patent Application Publication**

Hu et al.

(10) Pub. No.: **US 2009/0164009 A1**

(43) Pub. Date: **Jun. 25, 2009**

(54) **SOFT SILICONE MATERIALS FOR OPHTHALMIC APPLICATIONS**

Publication Classification

(75) Inventors: **Can Hu, Irvine, CA (US); Derek D. Pham, Garden Grove, CA (US); Michael D. Lowery, Vista, CA (US).**

(51) Int. Cl.  
*A61F 2/16* (2006.01)  
*C08G 77/04* (2006.01)  
*G02B 3/12* (2006.01)  
*G02C 7/04* (2006.01)  
*B29D 11/00* (2006.01)  
 (52) U.S. Cl. .... *623/6.56; 528/43; 359/665; 351/160 H; 264/2.7; 264/2.6*

Correspondence Address:  
**ABBOTT MEDICAL OPTICS, INC.**  
**1700 E. ST. ANDREW PLACE**  
**SANTA ANA, CA 92705 (US)**

(57) **ABSTRACT**

(73) Assignee: **Advanced Medical Optics, Santa Ana, CA (US)**

Described herein are silicone fluids and silicone materials that possess high glass transition temperatures ( $T_g$ s) when compared to conventional silicone materials. In one embodiment, an increased  $T_g$  allows the formation of objects and materials by cryogenic lathing. The fluids and materials can be formed by curing silicone fluid with a cross-linker mixture comprising a cross-linker and a monofunctional hydride compound. Upon formation, the silicone materials can be extracted over long periods of time without loss of optical quality. The silicone materials can be sufficiently soft allowing folding and insertion through small incisions in the eye. Additionally, methods of forming optical silicone materials, lenses and silicone materials in general are also disclosed. In one embodiment, the method of forming a silicone based lens using cryogenic lathing techniques is described.

(21) Appl. No.: **12/205,703**

(22) Filed: **Sep. 5, 2008**

Related U.S. Application Data

(63) Continuation-in-part of application No. 11/963,351, filed on Dec. 21, 2007.