

Jim Nangeroni

报告人简介:

Jim 拥有美国伦斯勒理工学院的化学工程学士学位，并于 1988 年获得美国特拉华大学的博士学位。他曾经在 Air Products & Chemicals 以及 Novon Products Group 的生物聚合物领域工作了 20 多年。自 1994 年开始加入 NatureWorks 公司，目前领导全球产品应用研发团队。



Jim 更被列为聚乙烯醇和聚丙烯交酯组合物和加工生物聚合物领域数十项专利的共同发明人。近年来，他一直专注于开发 Ingeo 的新应用，如定向薄膜，咖啡胶囊和家电用板材。

Jim 作为塑料工程师协会 ANTEC 挤塑分部的董事会成员，在任的 12 年中曾担任秘书，财务秘书和主席。1998 年，他更担任亚特兰大 ANTEC 总技术项目主席。他曾经为很多技术会议撰写了多篇论文并发表演讲，并在 ANTEC 的挤塑科两次获得最佳论文奖。

Profile of the Author:

Jim received his BS in Chemical Engineering from Rensselaer Polytechnic Institute and his Ph.D. from the University of Delaware in 1988. He has spent more than 20 years working in the field of biopolymers with Air Products & Chemicals and Novon Products Group. He started working with NatureWorks, LLC in 1994 and currently leads the Global Applications Development Team. He is listed as co-inventor on dozens of patents in the field of biopolymers for both polyvinyl alcohol and polylactide compositions and processing. In recent years, his focus has been on developing grades of Ingeo for new applications such as oriented films, coffee capsules, and heavy sheet for appliances.

Jim was on the Board of Directors for the Extrusion Division for 12 years serving as Secretary, Treasurer, and Chairman. In 1998, he was the overall Technical Program Chair for the ANTEC in Atlanta. He has authored several papers and made presentations at many technical conferences, twice winning the Best Paper Award at ANTEC for the Extrusion Division.

通过使用适当的配方、工艺条件和设备，完善 Ingeo™聚乳酸的特性去开拓高性能的应用

摘要： 尽管聚乳酸已经商业化应用了超过 15 年的时间，但依然有一种误解，即由于它的抗冲、耐热和阻隔性能差，它在高性能应用中的使用受到严重限制。然而，人们往往看不到的是，就像任何其他聚合物一样，它需要一个使用正确的配方，最佳的工艺条件和合适设备的组合，以获得最理想的性能应用于不同的领域，特别是那些要求高性能的产品应用。 这次演讲将介绍利用 Ingeo™聚乳酸为基材的单杯式饮料容器和耐用的冰箱内胆的应用研发。 通过有效的产品应用技术，具有成本效益和更重要的高功能部件都可以开发出来，相比现在使用的石油基树脂，带来更优越的性能和优化的材料特性。

Tailoring the Property Profile of Ingeo™ for High Performance Applications Through Use of Proper Formulations

Abstract: Even though PLA has been commercially available in large scale for more than 15 years, there is a misconception that because of its poor impact, heat and barrier properties, its use in high performance applications is severely limited. However, what people often fail to see is that just like any other base polymer, it takes a combination of the right formulation, optimum process conditions and use of the right equipment to derive the maximum properties for any application, especially those demanding high performance. In this presentation, the author will detail the development of a hot single serve beverage container and a durable refrigerator liner based on Ingeo™ polylactide resin. He will show that by effectively managing the above applications, cost effective and more importantly highly functional parts can be produced that bring enhanced performance and properties as compared to incumbent resins.