



Senior Materials Scientist

COMPANY OVERVIEW

iyris is an innovative optical polymer additives company. Our solutions are aimed at the agricultural polymers market, to enable higher yields, profitability, and sustainability for growers in hot climates globally. iyris has gained global recognition and is scaling rapidly, with technologies sold in fifteen countries on five continents. iyris is a multi-award-winning company and has a growing portfolio of high-profile partnerships in addition to profitable proof of concept sites delivering increased yields with less fresh water and energy consumption. We're looking for talented and experienced individuals who have a desire to join us on our journey and make a positive impact on the world.

ROLE DESCRIPTION

The Senior Materials Scientist will lead the development, processing, and testing of new innovations for our leading optical additive materials. This senior role requires someone who is comfortable and experienced directly in the lab, not only initiating design of experiments, but when necessary undertaking such experimentation directly. It combines deep technical expertise with strategic leadership to drive the evolution of iyris-developed materials from laboratory concepts to commercial polymer products. The Senior Materials Scientist will be responsible for research, development, optimization, technical leadership, and comprehensive understanding of complex polymer additive systems, their industrial processing requirements, and their interactions with light and environmental factors.

Building upon extensive experience in materials science and polymer engineering, the Senior Materials Scientist will spearhead R&D initiatives, mentor junior team members, and establish strategic partnerships with external collaborators. A critical aspect of this role involves leading product scale-up and commercialization efforts, bridging the gap between laboratory developments and market-ready solutions. The position requires expertise in translating research findings into manufacturable products while maintaining performance specifications and cost-effectiveness.

The ideal candidate will have extensive experience in Materials Science and Industrial Polymer Science, with proven success in product commercialization and scale-up processes. Strong leadership capabilities, strategic thinking, and experience managing complex technical projects from concept to market launch are essential. The candidate will be expected to be an exceptional communicator, highly organized, and capable of working effectively across all organizational levels and with external partners.

The position is based in KAUST, but travel to various operational locations and commercial partners may be required.

PRIMARY RESPONSIBILITIES

The role's primary responsibilities include, but are not limited to:

Technical Development:

- Lab based development work on new materials formulations, testing and analysis.
- Lead development, testing and optimization of complex additive systems with commercial polymers
- Drive innovation in new materials development as high-performance additives/pigments
- Oversee comprehensive characterization of polymer systems for mechanical, optical, and durability properties
- Direct large-scale industrial polymer processing trials and optimization
- Lead environmental testing programs and long-term degradation studies



- Establish and maintain quality control protocols for material performance validation

Commercialization & Scale-up:

- Lead product scale-up from laboratory to pilot and commercial production scales
- Develop and execute commercialization strategies for new materials and products
- Collaborate with manufacturing partners to optimize production processes and ensure scalability
- Conduct techno-economic analysis and cost modeling for commercial viability assessment
- Interface with supply chain partners and evaluate alternative sourcing strategies
- Establish and maintain relationships with key commercial partners and suppliers

Strategic Planning & Leadership:

- Develop and execute long-term R&D roadmaps aligned with business objectives
- Lead cross-functional project teams and mentor junior scientists
- Present research findings and strategic recommendations to executive leadership
- Establish and manage external research collaborations and partnerships
- Drive intellectual property strategy and patent development initiatives
- Represent iyris at industry conferences and technical forums

Analysis & Research:

- Conduct comprehensive market analysis and competitive intelligence
- Lead literature research and emerging technology assessment
- Evaluate new technologies and materials for potential integration
- Establish industry benchmarking and performance standards

REQUIRED SKILLS & EXPERIENCE

This role will report directly to the CTO and requires:

Education & Experience:

- PhD in Materials Science/Engineering, Chemistry, or related field, with minimum 5 years of relevant experience
- Proven track record in product development and commercialization in polymer/materials industries
- Demonstrated experience in scaling products from laboratory to commercial production
- Experience leading technical teams and managing complex R&D projects

Technical Expertise:

- Expert knowledge of characterization techniques including UV-Vis and FTIR Spectroscopy, Mechanical Testing, DSC, TGA, and other analytical methods
- Deep understanding of polymer processing, additives, optical materials science, and polymer chemistry
- Extensive experience with industrial-scale manufacturing and processing considerations
- Knowledge of regulatory requirements and quality standards for commercial materials
- Understanding of supply chain management and commercial manufacturing processes

Leadership & Business Skills:

- Proven leadership experience with ability to mentor and develop junior team members
- Strong project management skills with experience managing budgets and timelines
- Strategic thinking capability with experience in business development and commercialization
- Exceptional communication and presentation skills for technical and executive audiences
- Entrepreneurial mindset with outstanding organizational and analytical abilities
- Experience in IP development and technology transfer activities

Additional Requirements:

- Fluent in English with excellent written and verbal communication skills
- Willingness to travel internationally for business development and partnership activities
- Experience working in international markets and cross-cultural business environments