

Positions Available

PROCESS DEVELOPMENT ENGINEER

KEMIRA is an international chemicals manufacturer and the fifth largest producer of Titanium Dioxide pigments. We are proud of our advanced technology, environmental control, team-concept manufacturing, and aggressive marketing. Currently, we have an opening for a professional with an MS/PhD degree in Chemical Engineering as well as research experience in aerosols or fast high temperature reactions.

The successful candidate will be responsible for Process Development work on our TiO₂ pigment manufacturing process, studies of thermochemical equilibria and kinetics and model development and simulation.

Along with technical challenge and diversity, we offer competitive compensation, full benefits and professional recognition. Qualified Engineers are invited to submit resume, cover letter and salary expectations to: **Personnel Manager, Kemira, Inc., P.O. Box 368, Savannah, GA 31402.** Equal opportunity employer.



Positions Wanted

Postdoc in materials science and engineering seeks position in industrial/academic R&D in processing development and characterization of materials; PhD in solid-state physics with several years of diversified experience in materials science. Background in crystalline theory, solid-state physics, electronic materials processing, and computer modeling and simulation. Instrumentation: conventional and high-resolution TEM, including JOEL, Philips and Topcon EM; high-spatial-resolution spectroscopies (EELS and EDXS); CBED, SEM, and x-ray diffraction. Please reply to **Box XVIII, No. 602.**

Industrial/Academic Postdoctoral position: PhD in ceramic science. Three years experience in refractories manufacturing and development. Research-chemical processing of BaTiO₃ films and powders, crystallization in Y₂O₃-SiO₂ glasses. Characterization skills—TEM, SEM, XRD, DTA, TGA, FT-IR, size, density, and surface area. Excellent communication and interpersonal skills. Please reply to **Box XVIII, No. 601.**

Employers—
TO REPLY TO BOX NUMBER, WRITE:
 Box _____, No. _____, c/o MRS Bulletin
 Materials Research Society
 9800 McKnight Road, Pittsburgh, PA 15237

RESEARCH ASSOCIATE

Norian, a growing Class III medical device company, is seeking a research associate for biocompatible cement research. Responsibilities include cement formulation and development, mechanical and analytical characterization (e.g., Instron, XRD, FTIR, UV/vis., BET, particle size, etc.), equipment maintenance and calibration, and general laboratory duties. BS in materials engineering (or equivalent), with 1+ years laboratory experience required. Should be computer literate and have strong mechanical aptitude. Please send resume to: Norian Corporation, Attn. MF and II, 1025 Terra Bella Ave., Mountain View, CA 94043, or fax to (415) 968-5742.

Ad closing for the
 September MRS Bulletin is

August 1, 1993

To place your ad,
 call Mary E. Kaufold
 at (412) 367-3036 today!

POSTERMINARIES

*Brief Communication**

The Effect of Toxic Microbes on Accelerator Performance

I.M. Smart, Exochemistry Department, I.C. University
 U.R. Tu, Materials Science Publishing Unit, P.R. First, Inc.
 and

B.A. Sport, Society for the Prevention of Vacuum in Outer Space

ABSTRACT

The potential of the environment inside evacuated accelerator beamlines for breeding microbes which are both toxic to users and possess electric or magnetic organs of strength sufficient to deflect soft charged-particle beams has been explored. Unexplained human and accelerator "long-runtime" syndromes plaguing accelerator facilities for many years can be understood from this study. We have artificially bred such organisms and demonstrated that they are the cause of these syndromes. An appropriate microbicide-impregnated antiseptic beampipe liner with good outgassing properties could alleviate the problem.

Introduction

Anecdotal evidence from experiences of accelerator physicists regarding the contemporaneous occurrence of flu

symptoms (including delusionary episodes) and unexplained beam-optics and transmission problems after long