

**Positions Available**

**FACULTY POSITION**

**Materials Science and Engineering  
The Pennsylvania State University**

The Department of Materials Science and Engineering at Penn State is seeking applicants to fill a tenure-track position in The Metals Science and Engineering Program, at the assistant/associate level. Preferences will be given to candidates with a strong interest and expertise in physical metallurgy; e.g., microstructure/property relationships as they apply to joining, solidification, processing, and other industrially relevant applications of structural materials.

The candidates must have demonstrated a strong academic record, an outstanding potential for independent research, and a commitment to teaching both undergraduate and graduate students. Please send curriculum vitae with a list of publications, names of at least three references, and an abstract of research and teaching interests by **Wednesday, January 7, 1998** to Paul R. Howell, Chair, The Faculty Search Committee, Metals Science and Engineering, P.O. Box M, 209 Steidle Building, University Park, PA 16802.

*Penn State is an equal opportunity/  
affirmative action employer.  
Qualified minority and female candidates  
are encouraged to apply.*

**POSTDOCTORAL POSITION**

**Chemical Processing and Electrochemistry  
Carnegie Mellon University**

The department of Materials Science and Engineering at Carnegie Mellon University invites applications for a postdoctoral research position in the area of chemical processing and electrochemical characterization of electrode materials for rechargeable lithium-ion batteries. Current efforts are focused on chemical synthesis of lithiated transition metal oxides using novel chemical approaches including sol-gel and colloidal precipitation, and determining the electrochemical performance of these cathodes.

Candidates must have a PhD degree, preferably in materials science and engineering, with strong expertise in chemical processing, electrochemistry, and crystallography. Candidates should be familiar with the use of potentiostat for testing the electrochemical response of the electrode materials and in the Rietveld refinement procedures for determining crystal structures.

Interested candidates should send their curriculum vitae and the names of three references to Professor Prashant N. Kumta, Department of Materials Science and Engineering, Carnegie Mellon University, Pittsburgh, PA 15213. Refer questions to 412-268-8739, or send fax to 412-268-7596, or e-mail to [kumta@cmu.edu](mailto:kumta@cmu.edu).

**Services**

**PATENT ATTORNEY**

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Oblon, Spivak, McClelland, Maier & Neustadt, P.C.

**POSTERMINARIES**

***The Death of Nuance<sup>†</sup>***

**Executive Summary**

The thesis is presented that the net effect of executive summaries on understanding concepts and situations is negative. It is contended that subsequent decision making is therefore flawed and has negative consequences. This report notes that reports by experts analyzing these consequences usually begin with an executive summary. It is therefore concluded that a cycle of decay progresses on a downward spiral of comprehension acuity in the board-room. Possible remedies are considered ranging from elimination of summaries to elimination of executives.

<sup>†</sup>Inspired by the stanza from the Grocer's Apprentice, "Best mark these words well \ With no ifs, ands, or buts \ If it comes in a nutshell \ It's invariably nuts."

**Body of the Report**

**Findings**

**1 The inverse relationship between jurisdiction and comprehension beyond saturation**

The rationale is simple. The higher in an organization an executive is, the more responsibilities he or she has. Therefore the larger the amount of relevant information pertains to the duties of the office. The length of the work day and work week is ultimately finite, even for workaholics. There exists even for the most agile of mind a limit on the rate of information consumption and digestion per unit time. Therefore the amount of absorbable information per area of responsibility must decrease with elevation in the organization above a certain level.

**2 One solution**

This is not news of course. So, in theory at least, some solutions have been formulated. One is called delegation of responsibility and authority. With this approach, the executive gets summaries of results of actions taken by subordinates. The wise leader then mixes in some vision of ultimate goals and delegates more authority to produce more results. Sounds a bit naive but it works whether commanding a battle in a theater of war or conducting an orchestra in a theater of peace.

**3 Another solution**

Another solution, however, is the executive summary that prefaces a full dissertation on all ramifications of a situation. Frequently accompanying these scant few paragraphs atop a