PREFACE

This issue of ECS Transactions contains 29 refereed papers from the 30 talks and posters presented over three days at the second international symposium on Nanoscale Luminescent Materials held in Seattle, Washington as part of the 221st Meeting of the Electrochemical Society, May 6–11, 2012. The symposium was cosponsored by the Luminescence and Display Materials Division and The Dielectric Science and Technology Division.

The symposium focused on those characteristics of nanoscale materials that relate to their luminescence properties. Relevant topics included the effects of quantum confinement, the role of surface states, loss mechanisms, methods to improve luminescence efficiency, bulk versus nanoparticle luminescence, and the role of phonons in nanomaterials. Presentations at the meeting covered the basic physical and chemical properties of luminescent nanomaterials including insulators, semiconductors, organics, and polymers, nanophosphors for biophotonics and biomarkers, nanoparticles for light emitting diodes and next generation lighting applications, luminescent properties of fabricated nanostructures (nanowires, nanorods, and nanodots), and nanophosphors for traditional phosphor applications.

These proceedings are anticipated to be beneficial not only for the tailored preparation of nanoscale luminescent materials but also as a source of insights with respect to the origin and nature of their light emission processes. The papers were divided into seven oral sessions and a poster session and included sixteen invited papers. These proceedings follow the order of presentation at the symposium.

We wish to thank the session chairs, the manuscript referees, and the staff of The Electrochemical Society for their help in ensuring a successful symposium and for their assistance in preparing the proceedings. Finally, we thank all the participants for their valuable contributions to the symposium and for promptly providing their manuscripts for these proceedings.

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The technical activities of the Society are carried on by Divisions. Sections of the Society have been organized in a number of cities and regions. Major international meetings of the Society are held in the spring and fall of each year. At these meetings, the Divisions and Groups hold general sessions and sponsor symposia on specialized subjects.

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