

MRS Bulletin

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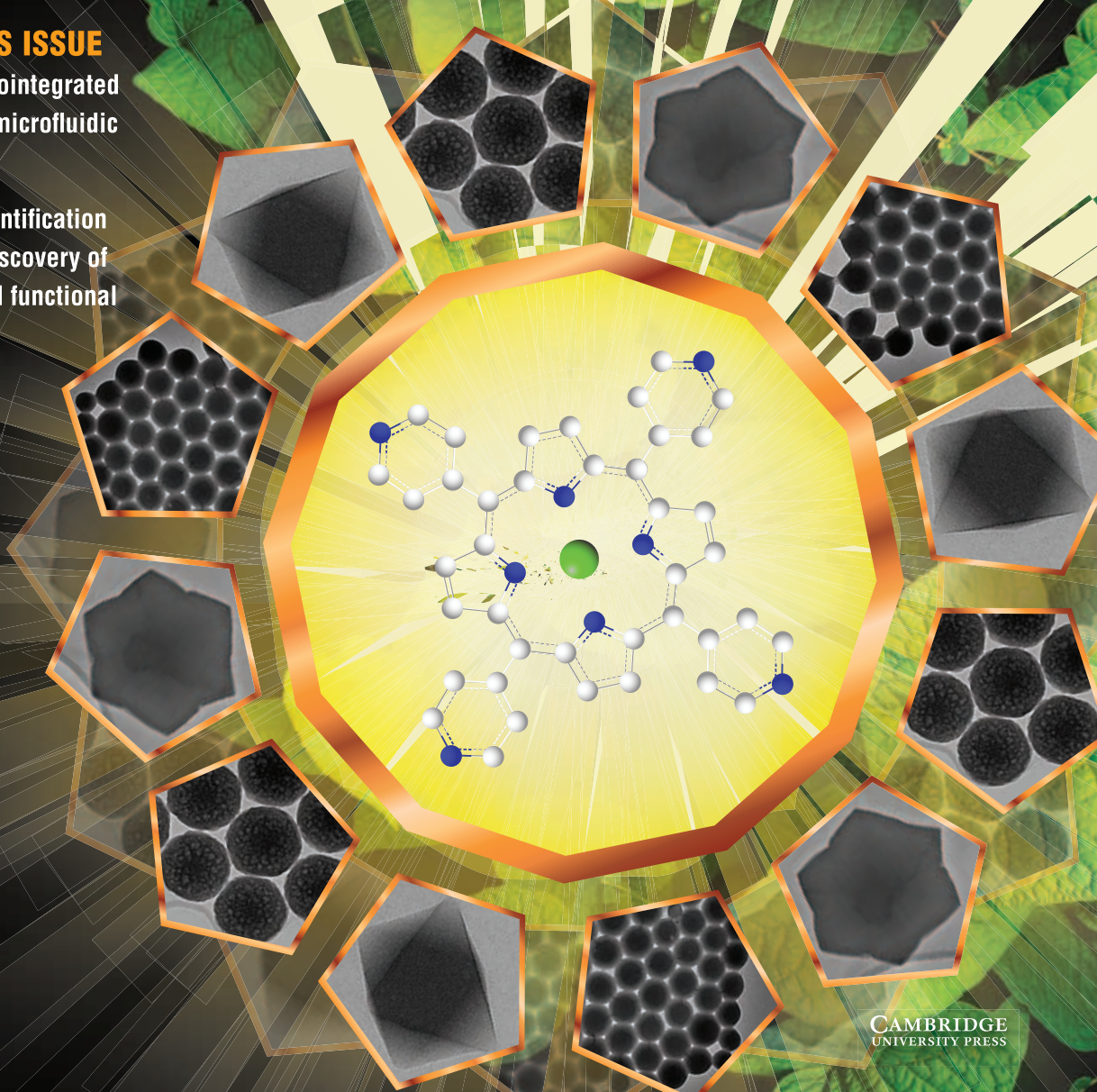
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Self-assembled porphyrin and macrocycle derivatives

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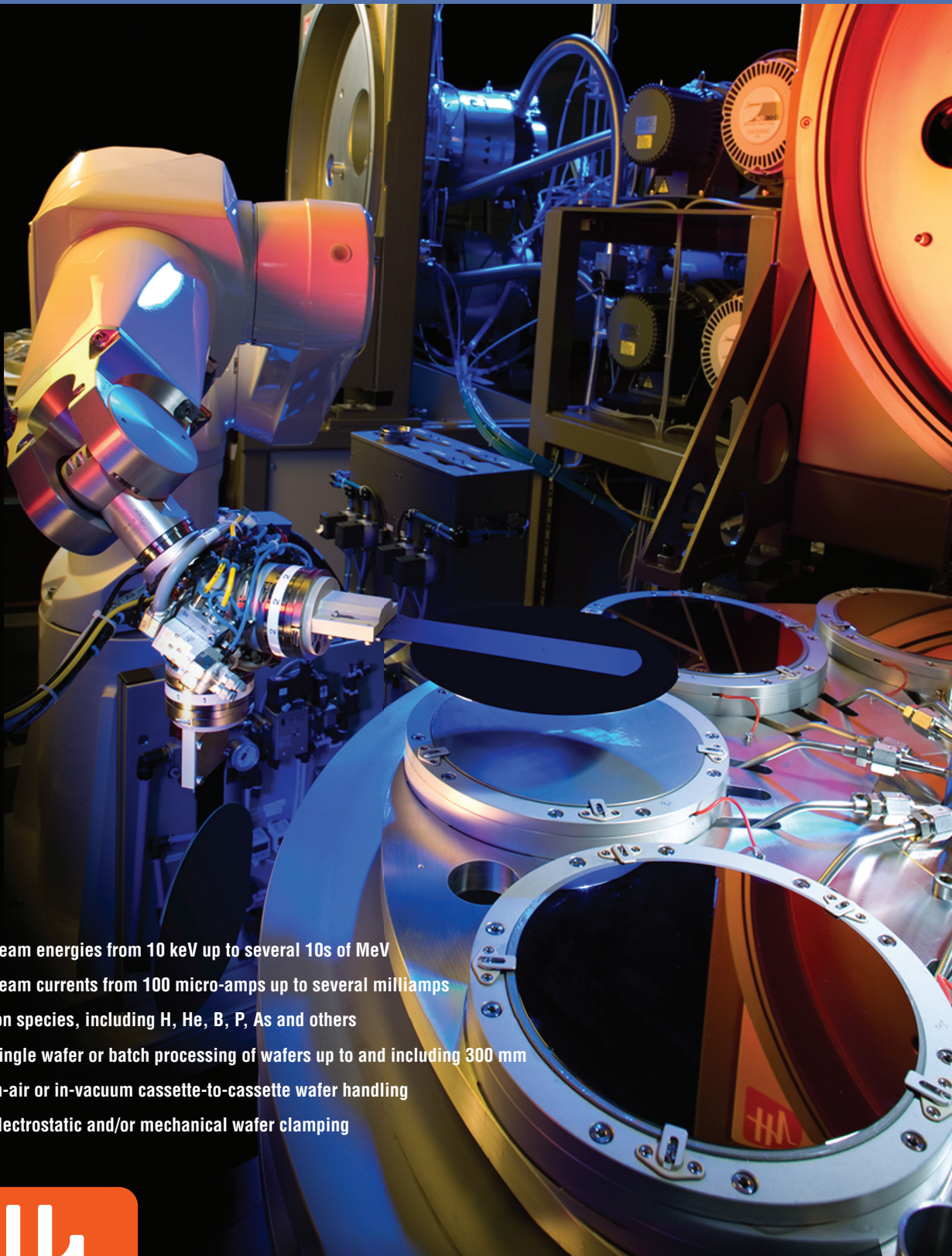
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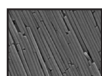
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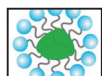
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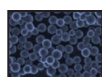
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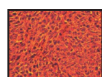
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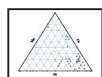
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ON THE COVER

Self-assembled porphyrin and macrocycle derivatives. Porphyrins are catalyst molecules in natural systems; for example, chlorophyll in leaves that activates the reaction for capturing CO₂, converting sunshine energy into chemical energy, and storing the energy. The articles in this issue cover the synthesis and formation mechanisms of artificial porphyrin-based nanostructures by self-assembly methods and their applications in solar-energy harvesting, water splitting, environmental pollutant reduction, and nanomedicine for tumor therapy. The cover shows

the molecular structure of a porphyrin. The inserts around the molecular structure are electron microscope images of the nanostructures of self-assembled porphyrins that enable highly efficient photocatalytic processes. See the technical theme that begins on page 167.



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About the Materials Research Society

The Materials Research Society (MRS), a not-for-profit scientific association founded in 1973 and headquartered in Warrendale, Pennsylvania, USA, promotes interdisciplinary materials research. Today, MRS is a growing, vibrant, member-driven organization of over 16,000 materials researchers spanning over 80 countries, from academia, industry, and government, and a recognized leader in the advancement of interdisciplinary materials research.

The Society's interdisciplinary approach differs from that of single-discipline professional societies because it promotes information exchange across many scientific and technical fields touching materials development. MRS conducts three major international annual meetings and also sponsors numerous single-topic scientific meetings. The Society recognizes professional and technical excellence and fosters technical interaction through University Chapters. In the international arena, MRS implements bilateral projects with partner organizations to benefit the worldwide materials community. The Materials Research Society Foundation helps the Society advance its mission by supporting various projects and initiatives.

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