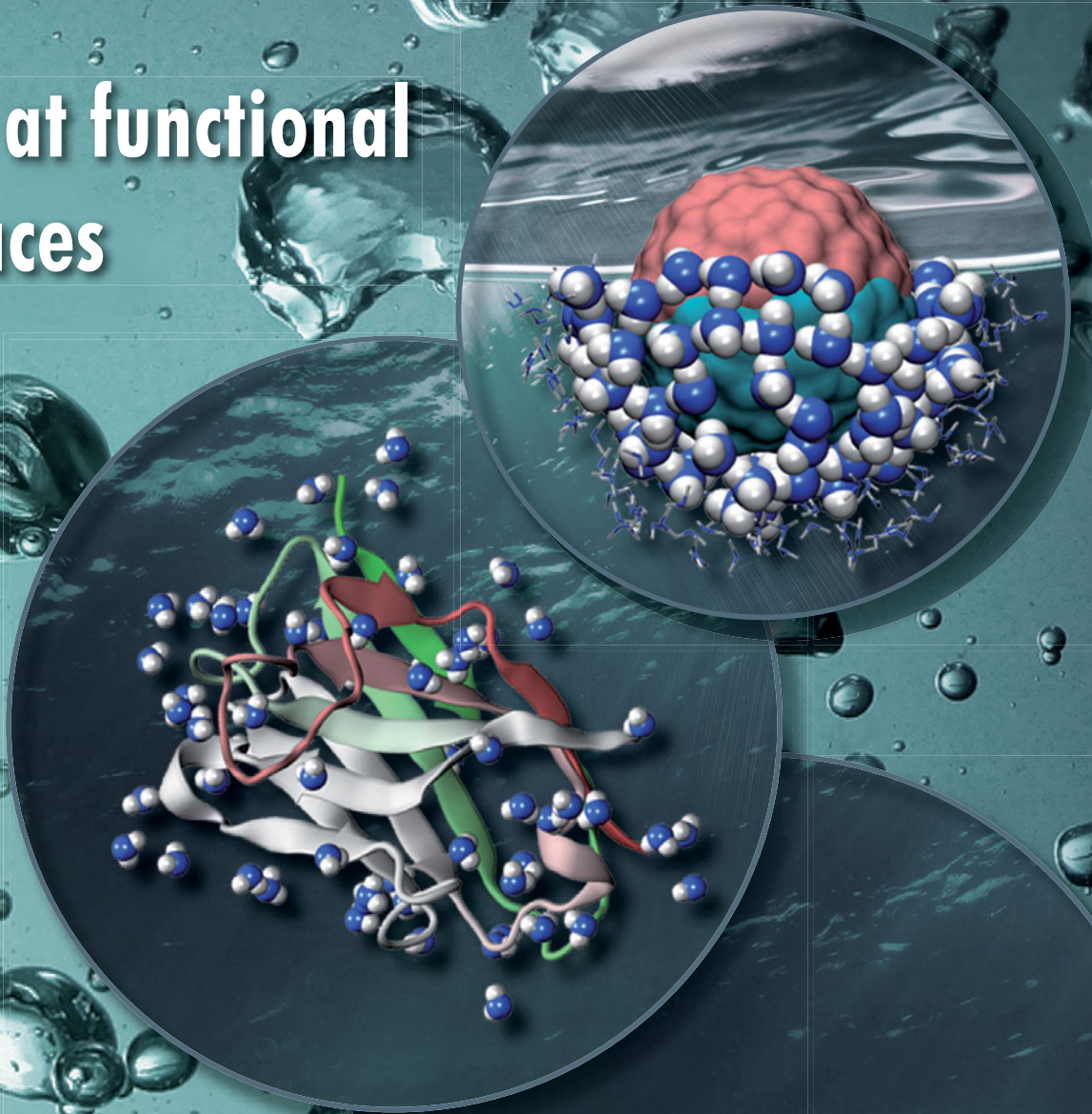


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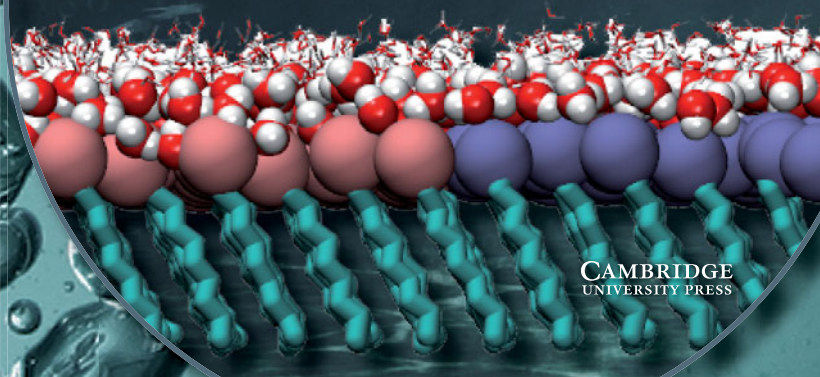
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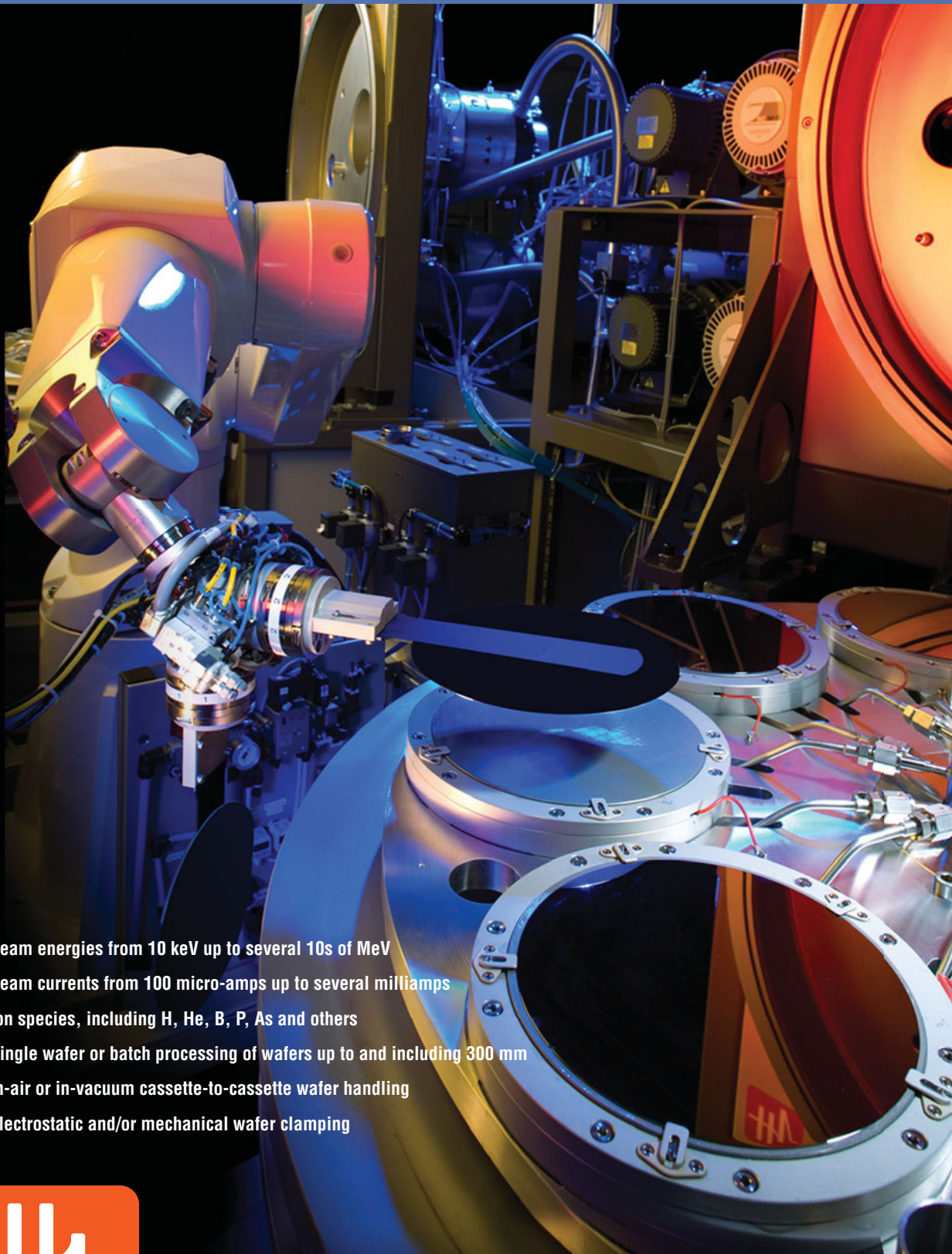
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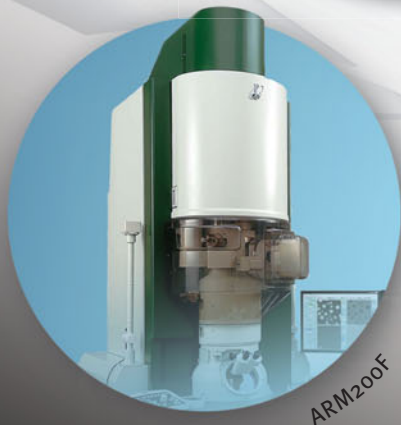
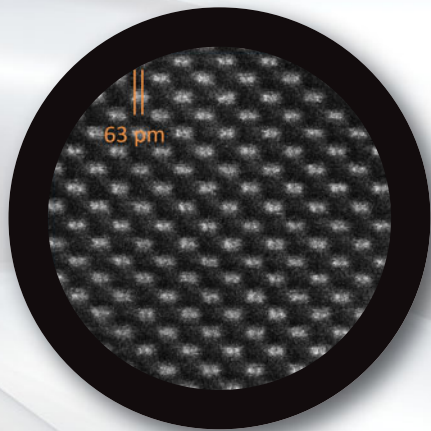
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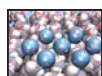
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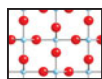
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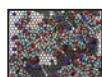


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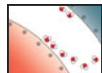
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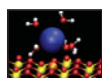
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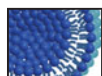
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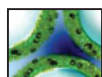
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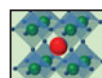


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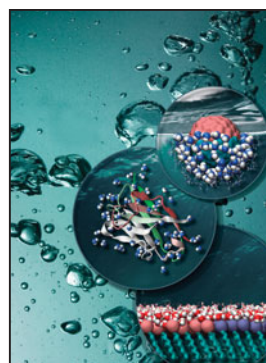


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Water at functional interfaces. The structure of water—its molecular packing, orientation, organization, and electronic structure—has become central to understanding water-mediated interactions. The articles in this issue of *MRS Bulletin* address how the structure and dynamics of water respond in the chemical and topographical context, how these phenomena can be investigated, and their implications. The

cover shows some examples of water-mediated interactions at interfaces. The top image shows a particle that goes to a water–vapor interface and sticks out the hydrophobic half on the vapor side, while the hydrophilic part is hydrated with “blue and white” water molecules in the first shell. The middle image is primarily a beta-sheet protein, except for the flexible loops. Some of the water molecules that hydrate this protein are shown in blue (oxygen) and white (hydrogen). The bottom image shows a patterned self-assembled monolayer and its hydration. See the technical theme that begins on page 1051.

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