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Abstract for an Invited Paper
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Role of Confined Water in Underwater Adhesion¹

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Surface bound water is a strong deterrent for forming strong bonds between two surfaces underwater and expelling that bound water is important for strong adhesion. I will discuss examples of different strategies used by geckos, spiders, and mussels to handle this last layer of bound water. Recent results using infrared-visible sum frequency generation spectroscopy to probe the structure of this bound water will be discussed.

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