#6: Transition Metals at Supported Lipid Bilayers, presented by Alexis Baxter

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In order to understand biological processes such as ion regulation, cell signaling, and lipid oxidation, the behavior of transition metals at biointerfaces must be explored. The Cremer Group investigates the association of transition metals like Zn^{2+}, Cu^{2+} and Fe^{2+} with lipids from cell membranes. We have developed a novel fluorescence quenching assay to measure the affinity of transition metals for specific lipids in bilayers. Using model membrane systems, we have discovered that transition metals can have high affinity for numerous physiologically relevant lipids, enhanced oxidation at membrane surfaces and cause domain formation.