

Abstract Submitted
for the NEF05 Meeting of
The American Physical Society

Gelation: How it Keeps the Stomach From Digesting Itself RAMA BANSIL, Boston University — In this talk, I will describe the unusual polymeric properties of mucin, a high molecular weight glycoprotein found in mucus, which is responsible for protecting the stomach from being digested by the gastric juices that it secretes. Using dynamic light scattering we were able to show that purified pig gastric mucin solutions form a gel under acidic pH. Tapping mode atomic force microscopy of mucin solutions and gels as a function of pH provide direct visual evidence of aggregation. AFM studies on human mucus will also be presented. A model of gelation based on the interplay of hydrophobic and electrostatic interactions will be discussed.

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Date submitted: 30 Sep 2005

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