Contribution ID: **323** Type: **Poster**

【640】Single Molecule Force Spectroscopy of Polyethylene Glycol Using Acid Chloride Anchors

Tuesday, 31 August 2021 19:11 (1 minute)

In force spectroscopy of chemical bonds, single molecule chains are being stretched using an atomic force microscope (AFM). Strong surface anchors are required to address covalent bonds. Here acid chloride anchors are tested, featuring a very reactive functional group. Rupture force and rupture length of stretched polyethylene glycol was measured. The slope of the force curves is used to derive the elasticity of the molecule, which in turn yields the length and thus the molecular weight distribution for the stretched molecules. A comparison with the molecular weight distribution provided by the manufacturer shows that indeed polyethylene glycol molecules are stretched.

Primary author: RAINER, Manuel (uni_innsbruck)

Presenter: RAINER, Manuel (uni_innsbruck)

Session Classification: Poster Session

Track Classification: Applied Physics and Plasma Physics