The tensile strength of the cometary surface: Laboratory experiments and implications on formation scenarios

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One big question in cometary physics is how the gas pressure can overcome the tensile strength of the surface material to effectively release dust from the cometary surface. Thus, we have performed laboratory experiments in order to measure the tensile strength of the cometary surface by using silica aggregates as an analog sample material. During this conference we would like to present our experimental results and to discuss how different formation scenarios can have influenced the activity of comets.