Supporting Information

Asphaltene Microencapsulation of Bitumen as a Means of Solid-Phase Transport

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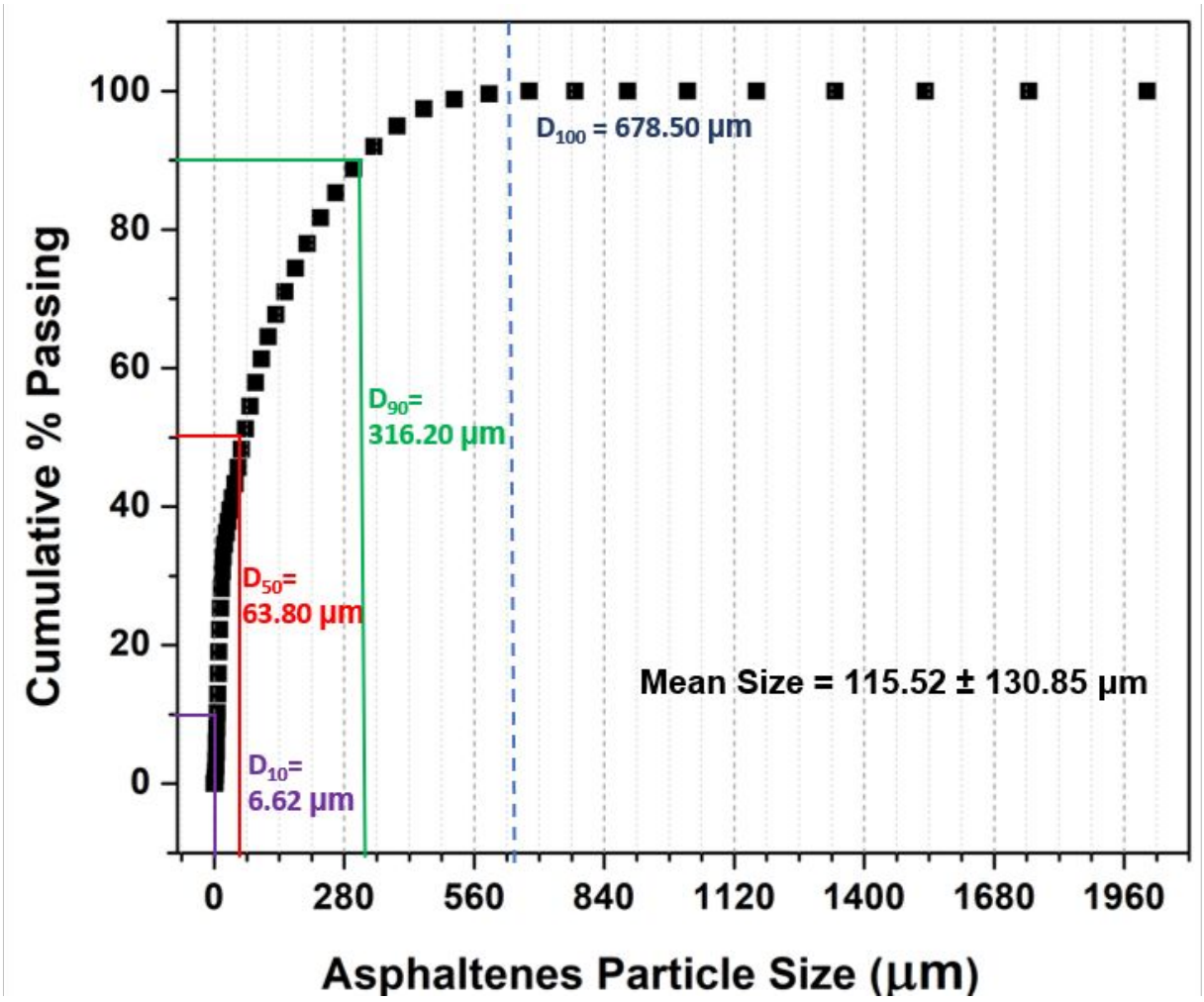

Figure S1: *Particle size analysis of ground asphaltenes measured by laser scattering particle size distribution analyzer.*

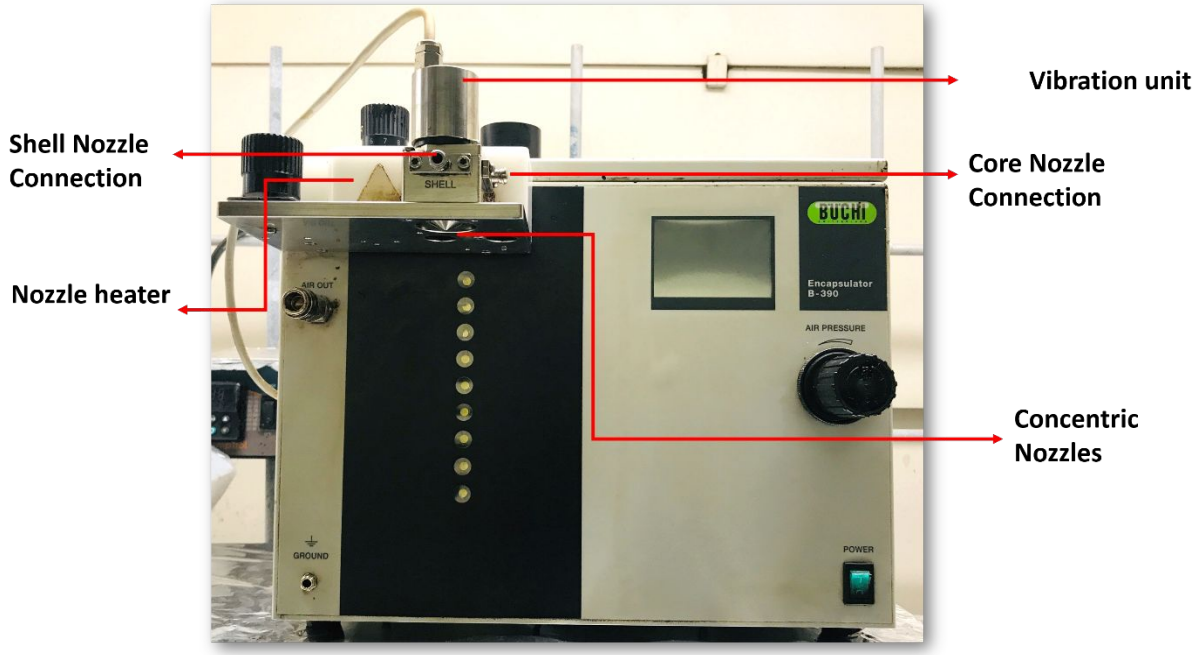

Figure S2: *Digital photograph of Encapsulator B-390 used for the formation of core-shell microcapsules of bitumen encapsulated by asphaltenes. The Encapsulator B-390 unit is equipped with concentric nozzles, a vibration unit, and a nozzle heater.*

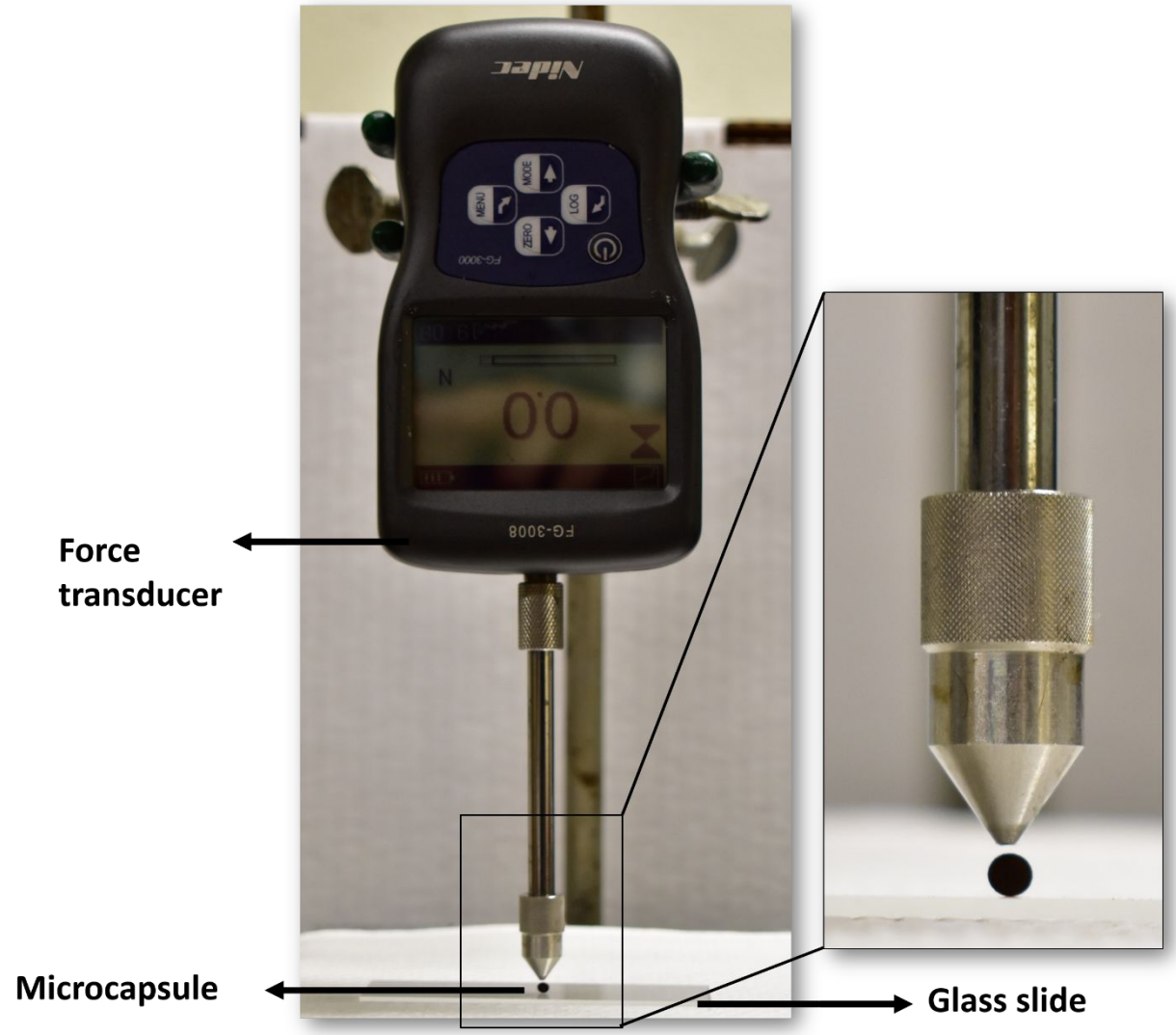

Figure S3*: Mechanical testing setup. A force transducer affixed to an indenter with known surface area impinges on microcapsule. The force transducer reading provides a measure of the stress-withstanding abilitiy of the microcapsule.*

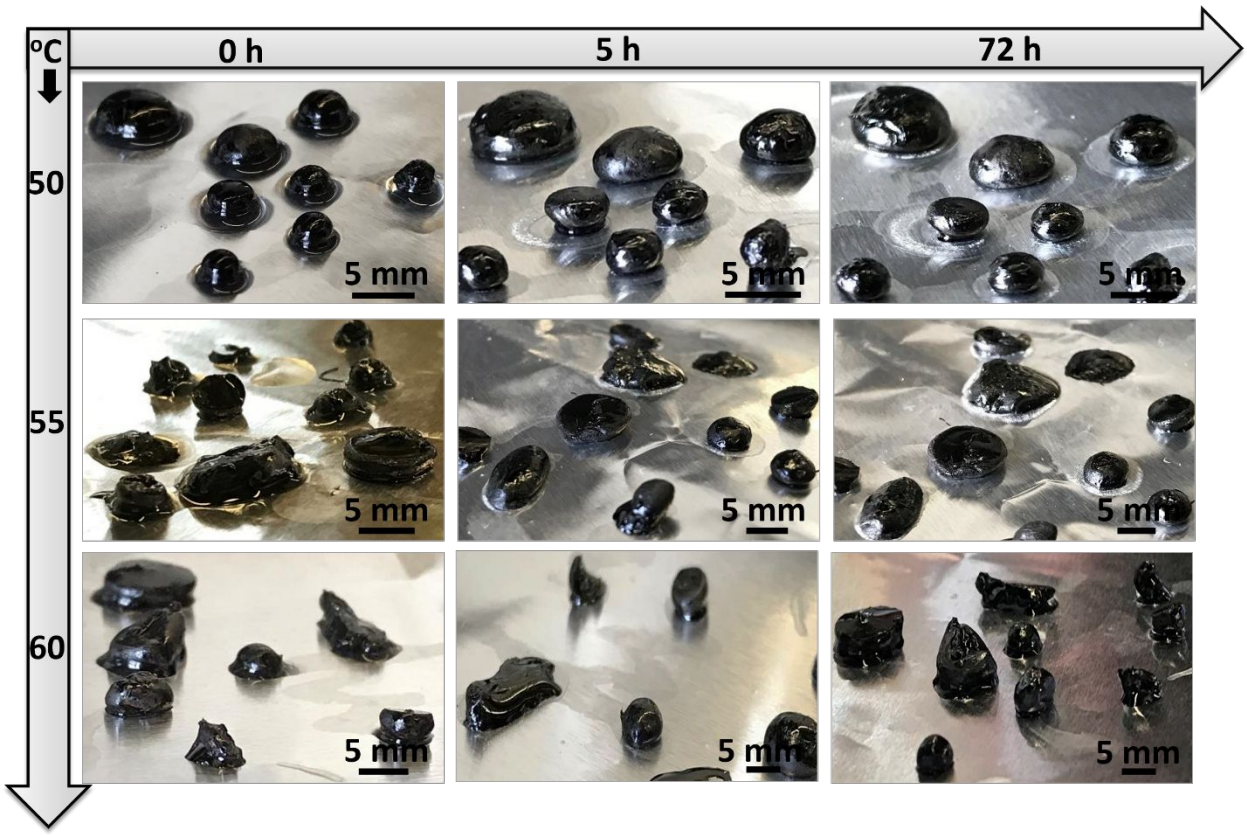

Figure S4: *Microcapsules filtered from a Pluronic F-127™ collection bath (at different temperatures) and allowed to dry on an aluminum foil placed in static air. With increasing temperature of the collection bath, the microcapsules are observed to adhere to the collection container and are deformed during filtration. The maximum temperature allowable for the collection bath wherein the shape and stability of the microcapsules is retained is 50°C.*

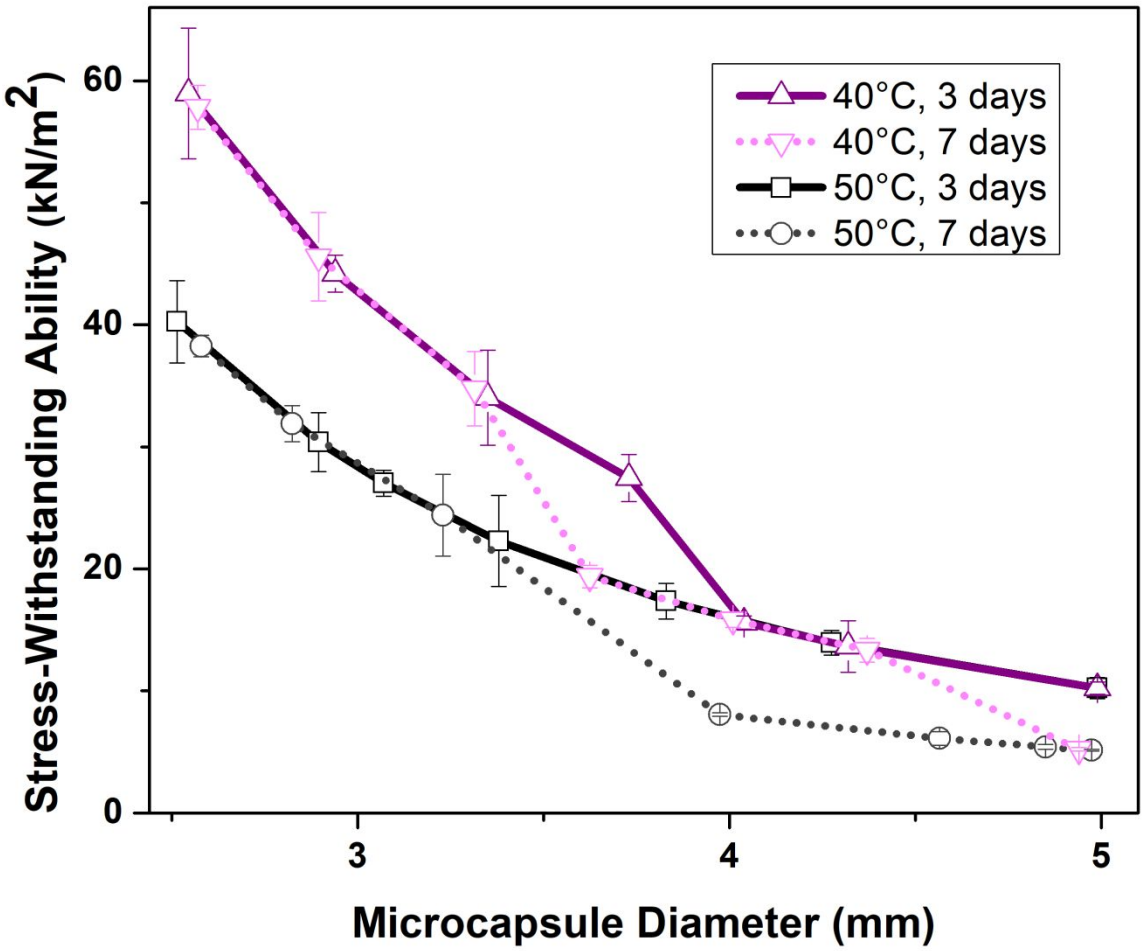

Figure S5: *Stress-withstanding abilities of microcapsules maintained and measured at 40°C and 50°C as a function of their diameter and drying time.*