**Aerogel Video List and Teacher Notes:**

**Emulsion**

* Straightforward and clear info on emulsions and everyday examples are provided. <https://www.youtube.com/watch?v=bC_czAL24zY>

**One Means of Aerogel Synthesis**

* **Agnello Polyimide Aerogels -- Weight Savers for Aircraft Antennae.**  A good summary of the work being done at NASA. Highlights the work of a young female engineer. <https://www.youtube.com/watch?v=DgkogPXG134>

**Videos that highlight a specific property of Aerogels**

*Thermal Insulative:*

* **Penn and Teller Tell a Lie: Aerogel Vs Flame Thrower.** Comical Penn and Teller video showing thermal insulative property. <https://www.youtube.com/watch?v=MCVw9PSDQRw&feature=youtu.be>
* Aerogels used in sheets for various shown and suggested uses including clothing, insoles, etc from a commercial company. Dry ice is used in this video. <https://www.youtube.com/watch?v=HITtcncWOJ4>
* Aerogels used in coats--Video in the middle of the KickStarter page; best if shown just before or just after a liquid nitrogen demo. <https://www.kickstarter.com/projects/1338531979/lukla-endeavour-outerwear-for-the-21st-century-adv?ref=category_location>

*Hydrophobicity:*

* Aerogel Powder—Superhydrophobic “Never Wet” Coating. <https://www.youtube.com/watch?v=sSUuUwS5rsU>
* **Hydrophobic Aerogel Makes Hands Waterproof.**  Chemistry structure explained. <https://www.youtube.com/watch?v=12QJKET1Dq8>
* Airloys--Improved Aerogels. <https://www.youtube.com/watch?v=k8OhJKR3AA4>

**Overview of Properties**

* **Quest Lab: Aerogel KQED Quest.** Dust Collection on space satellite shown.  Good to segue into clothing filtration goal. <https://www.youtube.com/watch?v=kHnen2nSmDY>
* **Why Airloys and Aerogels are the Next Supermaterial.** A good summary including the problem of cost of production. <https://www.youtube.com/watch?v=ZY5qy1gIF1s>
* **Advanced Materials by Green Earth Aerogel Technologies.** Environmentally friendly aerogel; properties shown but not uses; good showing of fireproofing. <https://www.youtube.com/watch?v=4k91URjFNgY>

**The Aerogel Synthesis Process**

* **How It’s Made—1336 Aerogel.** A thorough summary. <https://www.youtube.com/watch?v=AlohrrK6u4k>