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**Analysis of Adsorbed Natural Gas Tank Technology** ERNEST KNIGHT, CONRAD SCHULTZ, TYLER RASH, ELMAR DOHNKE, DAVID STALLA, ANDREW GILLESPIE, MARK SWEANY, FLORIAN SEYDEL, PETER PFEIFER, Univ of Missouri - Columbia — With gasoline being an ever decreasing finite resource and with the desire to reduce humanity's carbon footprint, there has been an increasing focus on innovation of alternative fuel sources. Natural gas burns cleaner, is more abundant, and conforms to modern engines. However, storing compressed natural gas (CNG) requires large, heavy gas cylinders, which limits space and fuel efficiency. Adsorbed natural gas (ANG) technology allows for much greater fuel storage capacity and the ability to store the gas at a much lower pressure. Thus, ANG tanks are much more flexible in terms of their size, shape, and weight. Our ANG tank employs monolithic nanoporous activated carbon as its adsorbent material. Several different configurations of this Flat Panel Tank Assembly (FPTA) along with a Fuel Extraction System (FES) were examined to compare with the mass flow rate demands of an engine.

Ernie Knight
Univ of Missouri - Columbia

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