

[Back to Results](#)ISI Web of Knowledge
Page 1 (Articles 1 -- 1)[Print This Page](#)

◀ [1] ▶

Record 1 of 1**Author(s):** Claar, TD; Yu, CJ; Hall, I; Banhart, J; Baumeister, J; Weber, M; Seeliger, W**Title:** Ultra-light-weight aluminum foam materials for automotive applications**Source:** INTERNATIONAL JOURNAL OF POWDER METALLURGY, 36 (6): 61-- SEP 2000**Language:** English**Document Type:** Article

Abstract: Ultra-lightweight metal foams are an emerging class of new engineering materials that can be tailored to have a very attractive combination of properties. Aluminum foams produced by Fraunhofer's powder metallurgy process show significant promise as multi-functional materials for a broad range of transportation applications. Their light weight and very high specific stiffness offer significant potential for vehicle weight reduction. The high energy absorption capabilities of aluminum foams can provide improved crash energy management. The range of materials properties that can be achieved using aluminum foams in various configurations and in combination with other structural materials are reviewed. Current and potential future applications of aluminum foams in automobiles, trucks, and military vehicles for weight reduction, increased fuel efficiency, and improved mobility are also described.

Addresses: Fraunhofer USA Ctr Delaware, Newark, DE 19716 USA; Univ Delaware, Mat Sci Program, Newark, DE 19716 USA; Fraunhofer Inst Mfg & Adv Mat, Bremen, Germany; Karmann GmbH, Osnabruck, Germany

Reprint Address: Claar, TD, Fraunhofer USA Ctr Delaware, 501 Wyoming Rd, Newark, DE 19716 USA.

Cited Reference Count: 7**Times Cited:** 2**Publisher:** AMER POWDER METALLURGY INST**Publisher Address:** 105 COLLEGE ROAD EAST, PRINCETON, NJ 08540 USA**ISSN:** 0888-7462**29-char Source Abbrev.:** INT J POWDER METALL**ISO Source Abbrev.:** Int. J. Powder Metall.**Source Item Page Count:** 10**Subject Category:** Metallurgy & Metallurgical Engineering**ISI Document Delivery No.:** 357YP[Back to Results](#)ISI Web of Knowledge
Page 1 (Articles 1 -- 1)[Print This Page](#)

◀ [1] ▶