Reconfiguring Steel Structures:
Energy Dissipation and Buckling Mitigation Through the Use of Steel Foams

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A Bibliography of Research into the Manufacture, Processing, and Application of Steel Foam

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Table of Contents

Introduction
1. General Metal Foam Sources
   1.1. Comprehensive Sources
   1.2. Conferences and Symposia
2. Manufacturing Processes
   2.1. Powder Metallurgy
   2.2. Hollow Spheres
   2.3. Other Processes
   2.4. Cost Reduction
3. Material Properties & Models
   3.1. Experimental Testing of Mechanical Properties
      3.1.a. Powder Metallurgy
      3.1.b. Hollow Spheres
      3.1.c. Other Processes
      3.1.d. Testing Techniques
   3.2. Microstructure and Theoretical Modeling
      3.2.a. Hollow Spheres
         3.2.a.i. Random Close Packed Modeling
      3.2.b. Other Models
      3.2.c. Interrelating Mechanical Properties-
   3.3. Dynamic Properties of Foams
4. Applications
   4.1. Progressive Collapse of Steel Buildings
   4.2. Biomedical
   4.3. Automotive and Aerospace
   4.4. Power Plants
   4.5. Noise Reduction
   4.6. Fire Retardant
   4.7. Seismic
Introduction

This document is intended to provide an overview of available literature on steel foam material properties and its applications.

Descriptions of publications are organized by topic. Within each topic, sources are organized alphabetically according to authors.

_All listings within each subcategory are sorted by year of publication (newest first), then alphabetically by author._
1. General Metal Foam Sources

1.1. Comprehensive Sources


1.2. Conferences and Symposia

General citations for proceedings from conferences and symposia. Individual articles referenced from these sources should be separately cited in appropriate sections below.


2. Manufacturing Processes

2.1. Powder Metallurgy


2.2. Hollow Spheres


2.3. Other Processes
2.4. Cost Reduction


3. Material Properties & Models

3.1. Experimental Testing of Mechanical Properties

3.1.a. Powder Metallurgy


3.1.b. Hollow Spheres


3.1.c. Other Processes


3.1.d. Testing Techniques


3.2. Microstructure and Theoretical Modeling

3.2.a. Hollow Spheres


3.2.a.i. Random Close Packed Modeling


3.2.b. Other Models


Kwon Y W, Cooke R E, and Park C (2002). “Representative unit-cell models for open-cell metal foams with or without elastic filler.” Materials Science and Engineering A343:63-70


3.2.c. Interrelating Mechanical Properties


3.3. Dynamic Properties of Foams


4. Applications

4.1. Progressive Collapse of Steel Buildings


4.2. Biomedical


4.3. Automotive and Aerospace


4.4. Power Plants


4.5. Noise Reduction

4.6. Fire Retardant


4.7. Seismic