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Superconductivity Data Data Set

Download: [Data Folder](#), [Data Set Description](#)

Abstract: Two file s contain data on 21263 superconductors and their relevant features.

Data Set Characteristics:	Multivariate	Number of Instances:	21263	Area:	Physical
Attribute Characteristics:	Real	Number of Attributes:	81	Date Donated	2018-10-12
Associated Tasks:	Regression	Missing Values?	N/A	Number of Web Hits:	46361

Source:

Kam Ham idieh, khamidieh '@' gmail.com, University of Pennsylvania, Statistics

Data Set Information:

There are two files: (1) train.csv contains 81 features extracted from 21263 superconductors along with the critical temperature in the 82nd column, (2) unique_m.csv contains the chemical formula broken up for all the 21263 superconductors from the train.csv file. The last two columns have the critical temperature and chemical formula. The original data comes from [\[Web Link\]](#) which is public. The goal here is to predict the critical temperature based on the features extracted.

Attribute Information:

Please see the relevant paper for the feature explanations.

Relevant Papers:

Hamidieh, Kam, A data-driven statistical model for predicting the critical temperature of a superconductor, Computational Materials Science, Volume 154, November 2018, Pages 346-354, [\[Web Link\]](#)

Citation Request:

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