# Construction of products-based supply chain networks using novel database integrating trade data into technological patents

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Abstract

This paper presents new conceptual trials to make product supply-chain networks embodied in the systematic way and also to guide an optimal database component and structure for visualizing product supply-chain networks. We create novel database integrated with harmonized system code (HS code) based on commodity trade data and US patent data. Our trials are not an easy task since this information has shown intrinsically heterogeneous characteristics and also has supported individually different reason of existence. In order to construct a virtual product supply-chain network, we use a commercial network visualization system (NetMiner ver.3, Cyram Corp., Korea) and apply to "sulfur-based industry" as case study.
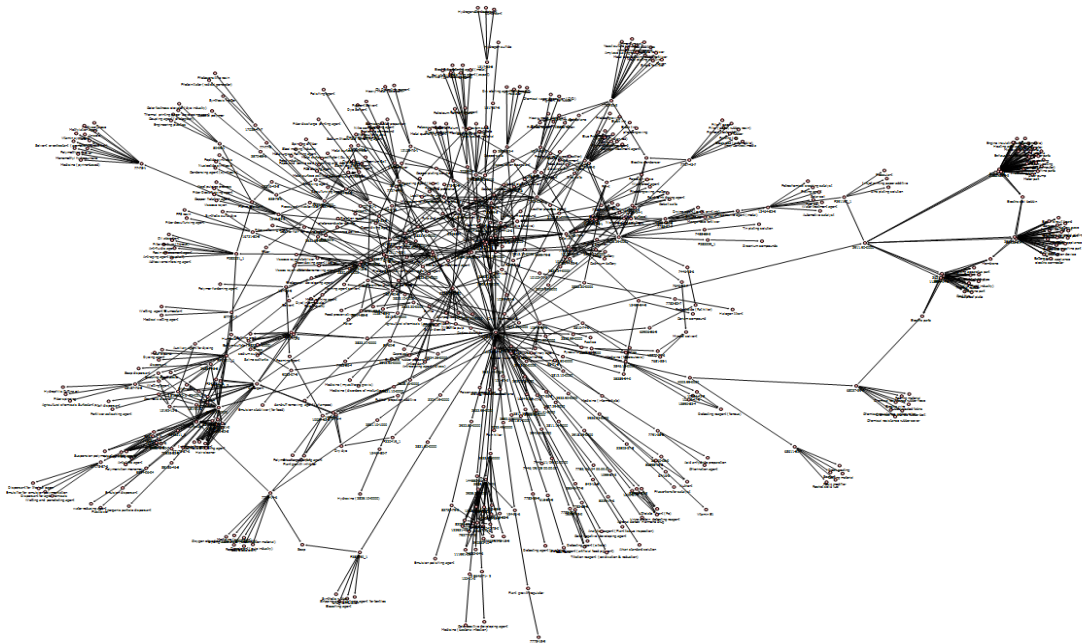
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