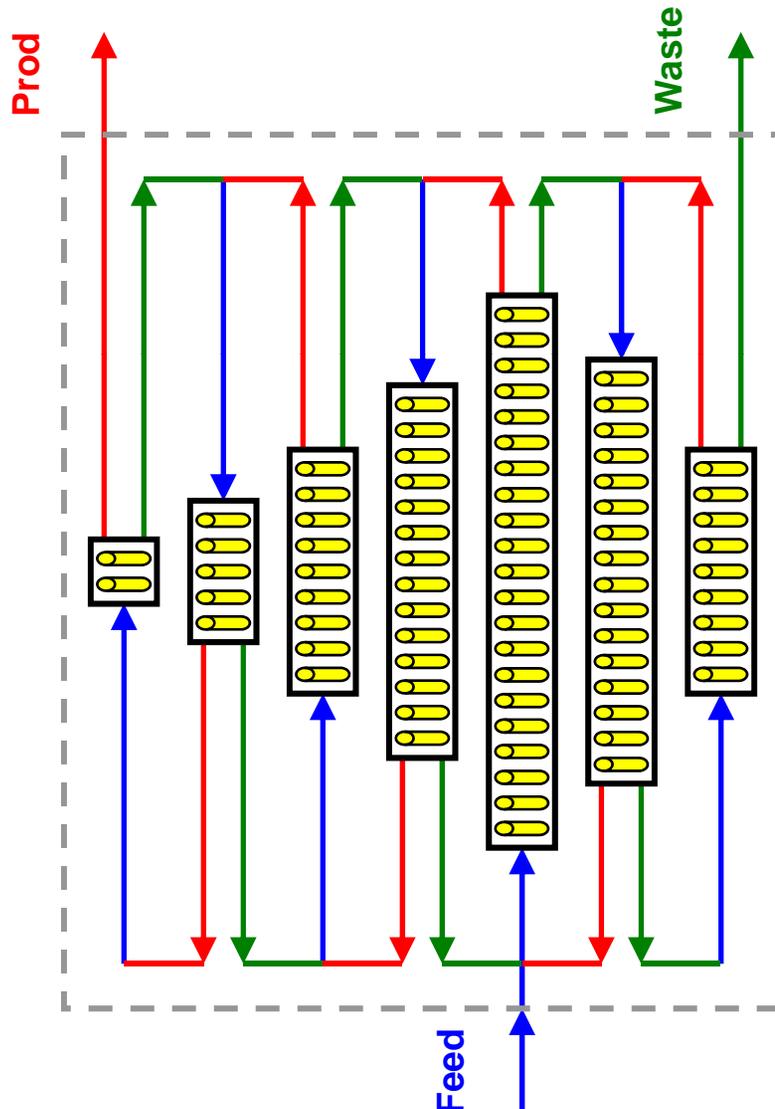


Gas Centrifuge Cascade Design

Modeling & Simulation Group



Problem Statement:

Computer codes are needed to simulate gas centrifuge cascades in support of the United States Enrichment Corporation effort to build a gas centrifuge uranium enrichment plant.

Technical Approach:

Codes written by the author for use in the DOE GCEP in the 1980's have been revised to incorporate more sophisticated numerical algorithms & the latest centrifuge machine models. This software suite includes codes to optimize the separative performance of cascades, model cascade flow control systems, & calculate steady state & transient flows & pressures in UF_6 piping networks.

Benefit:

These codes are mature tools for modeling design & off-design behavior of gas centrifuge cascades. Moreover, the codes remain in continual development to expand code capabilities, to reflect changes in machine & cascade design, & to improve numerical methods.