

Materials for Industrial Heat Recovery Systems*

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Abstract

Recovery of heat is essential in industrial systems whether it be through conventional heat exchangers, water walls in boilers, furnace recuperators or other systems. This project is addressing corrosion and cracking of metallic tubes in recuperators in the furnaces used in the secondary aluminum industry and in the water wall and superheater tubes in recovery boilers in the paper industry. Progress has been made in identifying alternate materials or changes in operating procedures to lessen the degradation, and studies are continuing to determine the degradation mechanisms.

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