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Absorption Technology As A Global Sustainable Energy Solution

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In recent years, there has been a significant drive towards sustainability in the world, fueled in large part by a greater awareness of the threats posed by global warming and to some extent by the need for energy independence. Research institutions and manufacturers are recognizing the role absorption can play in this endeavor and are taking steps towards adapting the technology to boundary conditions imposed by reduced environmental impact, primarily by providing energy-conserving solutions in the area of space and process cooling and heating. These include the coupling with distributed power generation devices such as gas-fired engines and microturbines, and other low-availability sources such as process waste and solar heat, to yield integrated energy or polygeneration systems. This seminar attempts to capture the more significant of these efforts in the U.S., Europe, Middle East and Asia, in particular those that are making in-roads into the commercial arena. Recent developments on the research front and future trends will also be discussed.

Keywords: Absorption Polygeneration Cooling Heat Pump Waste Heat Solar Sustainability