SF	Collaborative Research: Determining the Volatile and Slab Flux from the Izu-Bonin-Marianas Active Margin Using Geothermal Fluids, Phenocrysts and Melt Inclusions	
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	6/1/03 – 5/31/06	OCE 03-05218

Main focus is to constrain the volatile and mass transfer through the IBM arc system and correlate information obtained from melt inclusions with that obtained from volatile emissions.

- Will provide new insights to understanding volatile transfer from the subducting slab through the mantle wedge to the atmosphere.
- Will address issue of the variability of volatile emissions through time and due to variations in the subduction parameters. It is anticipated to provide a means to evaluate paleo-volatile emissions from subduction zones to constrain changes of the atmospheric composition.
- Partially funded rapid response effort to the first historical eruption of Anatahan Volcano, Marianas.

Publications and Presentations

Abstracts:

Hilton, D. R., Fischer, T. P., Shaw, A. M., Walker, J. A. (2004) The CO_2-He isotope and relative abundance systematics of the Central American arc. Penrose Conference, Mexico Jan 2004

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Shaw, A. M., Hilton, D., Fischer, T., Walker, J. (2003) Helium Variations in Mineral Separates from Cerro Negro Volcano, Nicaragua: Assessing Short Time-Scale Variations. AGU Fall Meeting

Pfeffer, M. A., Rietmeijer, F., Brearly, A. J. Fischer, T. P. (2003) Aerosol Evolution Within a Low-Temperature Volcanic Plume, AGU Fall meeting

Hilton, D. R., Fischer, T. P., Camacho (2003) Rapid response to the May 2003 Anatahan eruption, Mariana Islands. AGU Fall meeting.

O'Leary, J. A., Eiler, J. M., Fischer, T. P., Hilton, D. R., Jaffee, L. (2003) Oxygen isotope geochemistry of the May 10th Anahatan eruption. AGU Fall meeting

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Shaw A. M., D. R. Hilton, T. Fischer, J. Walker Unravelling the C systematics of the Central American volcanic output (2002) Geochim. Cosmochim. Acta Special supplement Goldschmidt, Conference, Davos, Switzerland.

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