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### **Publications (10 of 32)**

- Leifer I.**, and R. Patro, 2002. The bubble mechanism for transport of methane from the shallow sea bed to the surface : A review and sensitivity study. *Cont. Shelf Res.* **22**, 2409-2428.
- Leifer I.**, Patro, R., and P. Bowyer, 2000. A study on the temperature variation of rise velocity for large clean bubbles. *J. Atm. and Ocean. Tech.* **17(10)**, 1392-1402.
- Leifer, I.**, and I. MacDonald, 2001. Dynamics of the gas flux from shallow gas hydrate deposits: Interaction between oily hydrate bubbles and the oceanic environment. *Ear. Plan. Sci. Lett.*, in Press.
- Leifer, I.**, and G De Leeuw, 2001. Bubble Measurements in Breaking-Wave Generated Bubble Plumes During the LUMINY Wind-Wave Experiment. In *Gas Transfer and Water Surfaces*, Eds. M. Donelan, W. Drennan, E.S. Salzman, and R. Wanninkhof, AGU Monograph **127**, 303-309.
- Leifer, I.**, and A.G. Judd. 2001. Oceanic methane layers : A bubble deposition mechanism from marine hydrocarbon seepage. *Terra Nova*, **16**, 471-425.
- Leifer, I.**, and J. Clark, 2002. Modeling trace gases in hydrocarbon seep bubbles. Application to marine hydrocarbon seeps in the Santa Barbara Channel, *Russian Geology and Geophysics*, **43(7)**,
- Leifer, I.**, G. De Leeuw, and L.H. Cohen, 2000. Secondary bubble production from breaking waves : The bubble burst mechanism, *Geophys. Res. Lett.* **27(24)**, 4077-4080.
- Patro, R., I. **Leifer**, and P. Bowyer, 2001. Better bubble process modeling : Improved bubble hydrodynamics parameterisation. In *Gas Transfer and Water Surfaces*, Eds. M. Donelan, W. Drennan, E.S. Salzman, and R. Wanninkhof, AGU Monograph **127**, 315-320.
- Leifer, I.**, J. Clark, and R. Chen, 2000. Modifications of the local environment by a natural marine hydrocarbon seep, *Geophys. Res. Lett.* **27(22)**, 3711-3714.
- Leifer, I.**, G. De Leeuw, and L.H. Cohen, 2002. Optical measurement of bubbles: System, design and application. *J. Atm. Ocean. Tech.*, submitted.

### **Synergistic Activities**

- Consulting Science Editor to Odyssey Science Magazine, Bubbleology issue – September, 2001.
- Strathmore's Who's who Honorary Member, 2001-2003.
- Development and maintenance of the bubbleology web site describing bubble research and processes. The site generates downloads and inquiries from all over the world including developing countries.

### **Current Collaborations**

- Banerjee, Sanjoy, Chemical Engineering Dept., University of California, Santa Barbara, CA.
- Boles, Jim, Department of Geological Sciences, University of California, Santa Barbara, CA.
- Chen, Bob, Environmental, Coastal and Ocean Sciences, University of Mass, Boston, MA.
- Clark, Jordan, Department of Geological Sciences, University of California, Santa Barbara, CA.
- Cohen, Leo, TNO-Physics and Electronics Laboratory, The Hague, The Netherlands.
- Coffin, Rick, Naval Research Laboratory, Washington DC.

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Holden, Patricia, University of California, Santa Barbara, CA.  
Judd, Alan, University of Sunderland, England.  
Lorenson, Tom, US Geological Service, Menlo Park, CA.  
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MacDonald, Ian, Texas A&M, Corpus Cristi, TX.  
Patro, Ranjan, College of the North Atlantic, Labrador, Canada.  
Schlenk, Dan, University of California, Riverside, CA.  
Washburn, Libe, Geographical Studies, University of California, Santa Barbara, CA.