

# Yasuhara, Hideaki

Nationality: JAPAN

Place and date of birth: Kurashiki, JAPAN, DOB:Nov.27.1975

Position: Assistant Professor, Civil and Environmental Engineering, Ehime University, Japan

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## EDUCATIONAL DETAILS

2005.8. **Ph.D.Engineering** The Pennsylvania State University, University Park, PA

2000.3. **M.S. Engineering** Kyoto University, Kyoto, Japan

1998.3. **B.S. Engineering** Kyoto University, Kyoto, Japan

## DISSERTATION

Title: “**Thermo-Hydro-Mechano-Chemical Couplings that Define the Evolution of Permeability in Rock Fractures**” The dissertation examines the coupled THMC behavior that affects the evolution in fracture aperture (or related permeability).

Dissertation Advisor: Derek Elsworth (The Pennsylvania State University)

## PROFESSIONAL DETAILS

2005.11. – Pres. **Assistant Professor**

Civil and Environmental Engineering, Ehime University, JAPAN

2005.5.– 2005.10. **Graduate Lecturer**

Geo-Environmental Engineering, The Pennsylvania State University

## RESEARCH INTERESTS

Rock mechanics and engineering, earth physics, geochemistry, fault mechanics, computational mechanics, flow and transport in porous fractured rock.

## SELECTED PUBLICATIONS

**Yasuhara, H.**, D. Elsworth, and A. Polak (2003), A mechanistic model for compaction of granular aggregates moderated by pressure solution, *J. Geophys. Res.* 108(11) 2530, doi:10.1029/2003JB002536.

**Yasuhara, H.**, D. Elsworth, and A. Polak (2003) Compaction and diagenesis of sandstones - the role of pressure solution. *GeoProc 2003. Proc. Int. Conf. on Coupled T-H-M-C Processes in Geosystems. Stockholm, Sweden*, pp. 731 - 736.

**Yasuhara, H.**, D. Elsworth, and A. Polak (2004), *The evolution of permeability in a natural fracture: The significant role of pressure solution*, *J. Geophys. Res.* 109(B3), B03204, doi:10.1029/2003JB002663.

**Yasuhara, H.**, C. Marone, and D. Elsworth (2005), *Fault Zone Restrengthening and Frictional Healing: The Role of Pressure Solution*, *J. Geophys. Res.* 110(6), B06310, doi:10.1029/2004JB003327.

## GRADUATE ADVISORS

Derek Elsworth (Penn State), Abraham S. Grader(Penn State), Phillip M. Halleck(Penn State), Serguei N. Lvov(Penn State), Chris J. Marone(Penn State)