



# Research Synopsis

RMU  
Summer  
School 2017

Photo: Sarychev Volcano, Kuril Islands, Russia

Brian A. Konecke, graduate student

## Subduction Zone Magmatism

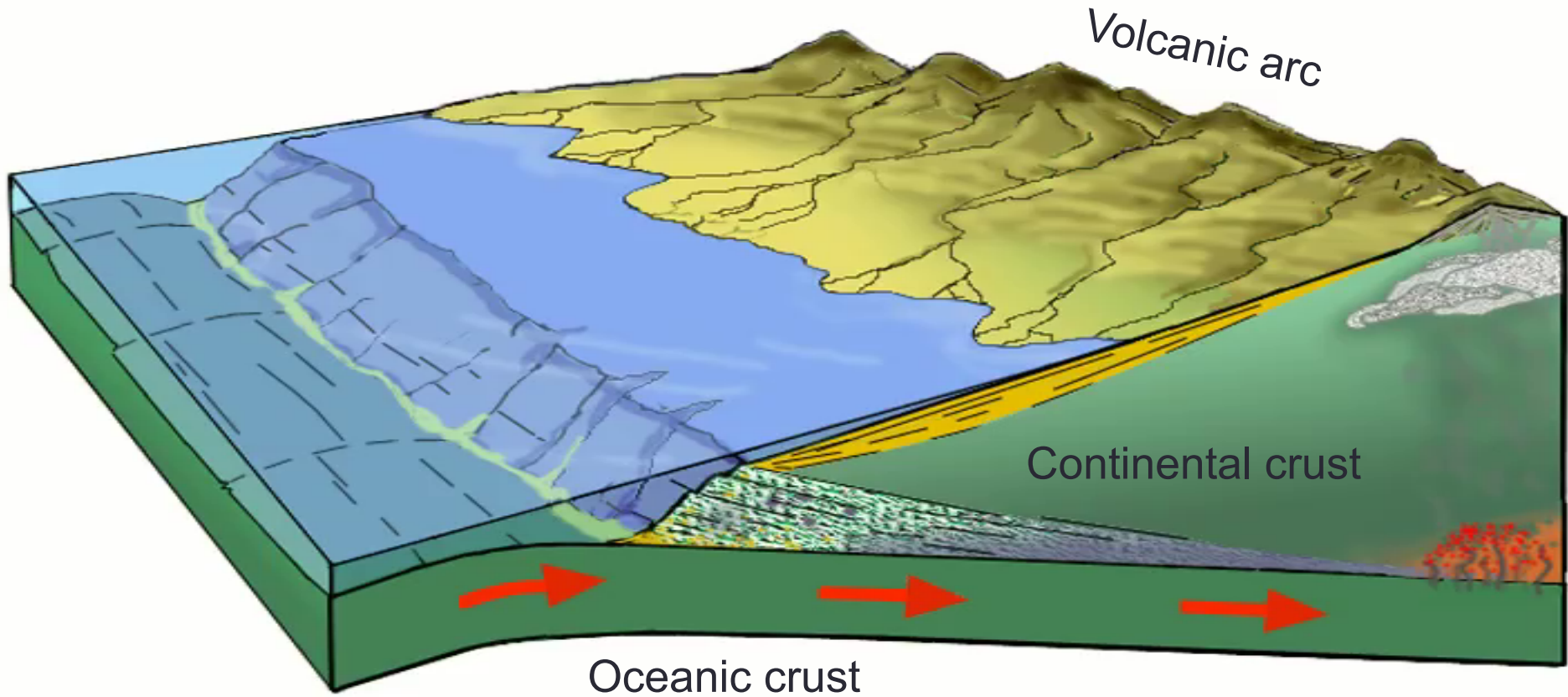






Photo: 1991 eruption of Mt. Pinatubo, Philippines



**Directly sampling  
melted rock can  
be difficult...**





# Experimental “Petrology”

## 1. Starting rock material



Granite

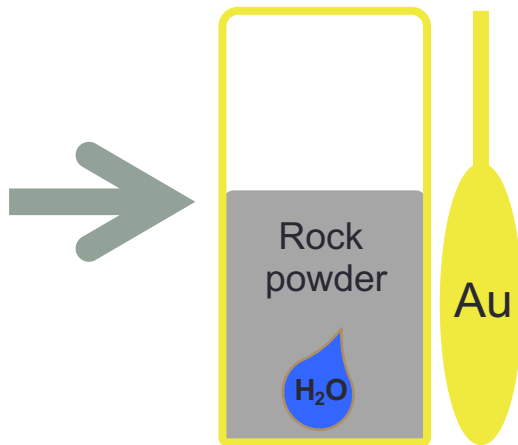
# Experimental “Petrology”

## 1. Starting rock material



Granite

## 2. Experimental capsule



Cartoon: typical gold capsule; 1 cm x 0.3 cm



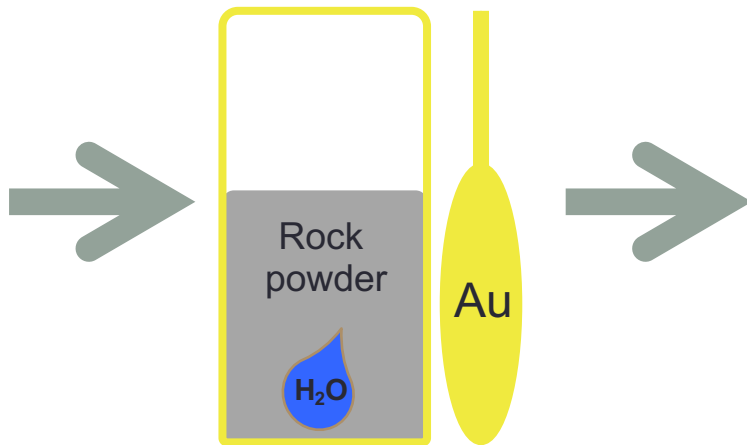
# Experimental “Petrology”

## 1. Starting rock material



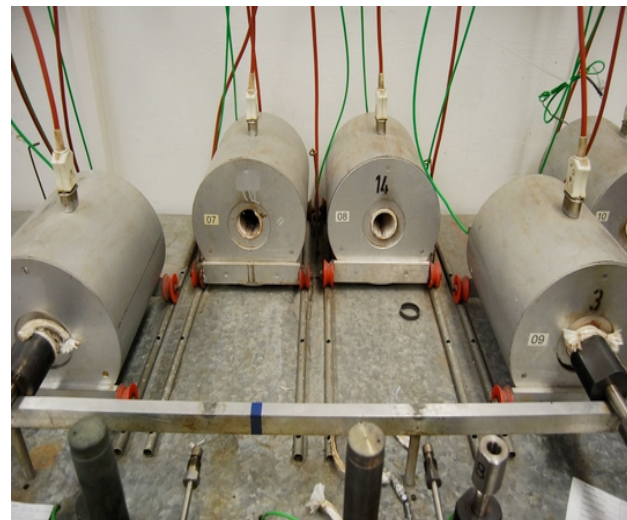
Granite

## 2. Experimental capsule



Cartoon: typical gold capsule; 1 cm x 0.3 cm

## 3. Experimental Apparatus



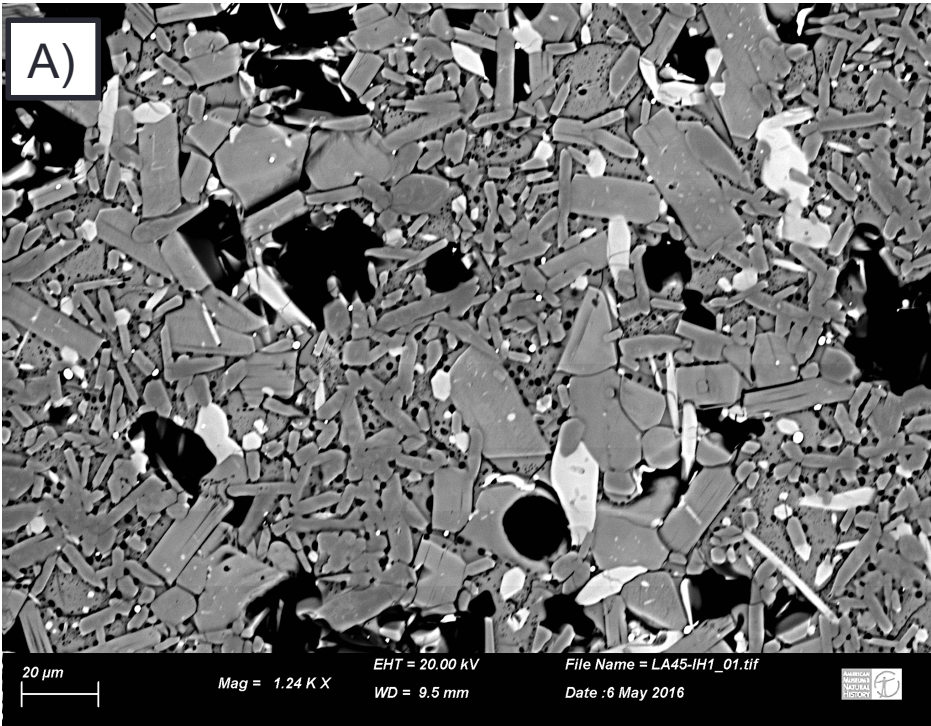
Images: Cold seal pressure vessels (CSPV)





## “Experimental” Magma

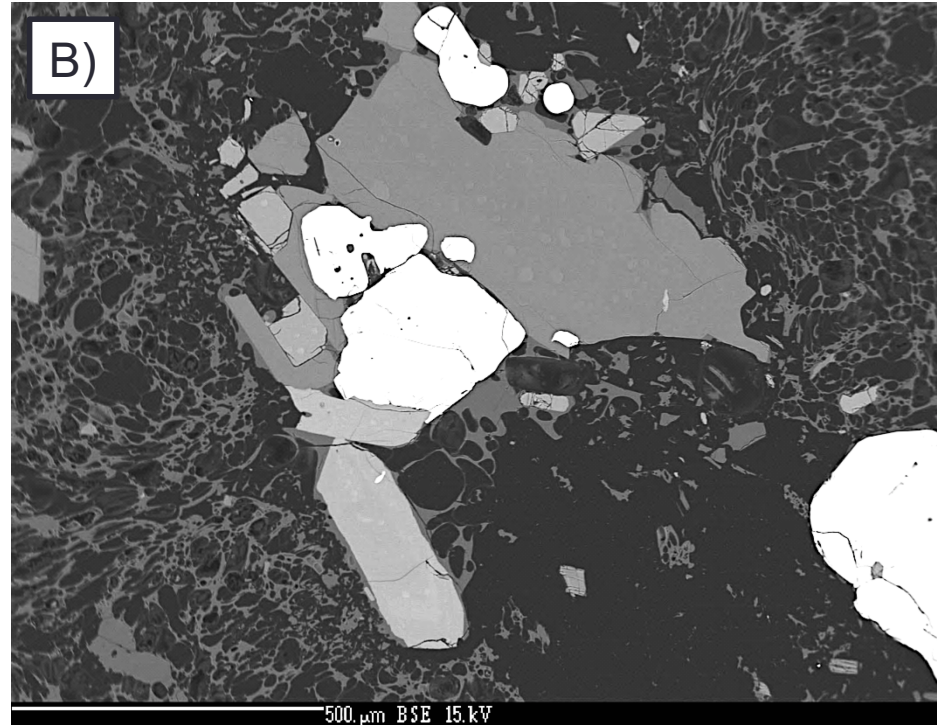
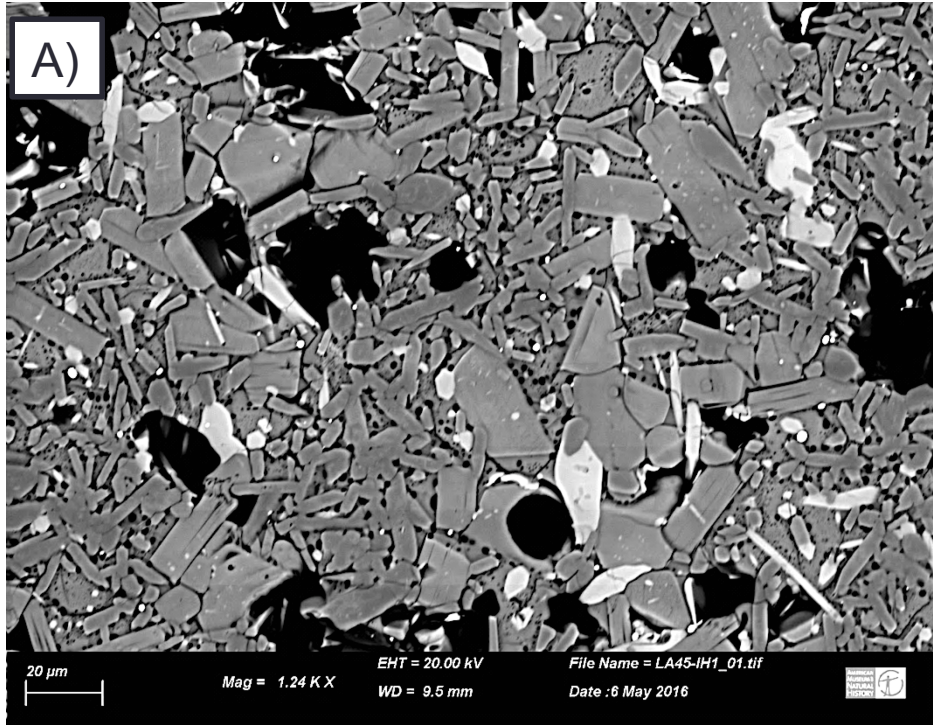
## “Natural” Magma



Images A-B: Back scattered electron (SEM) images of experimental quenched magma (A), and (B) eruption products from the 1991 eruption of Mt. Pinatubo, Philippines.

## “Experimental” Magma

## “Natural” Magma



Images A-B: Back scattered electron (SEM) images of experimental quenched magma (A), and (B) eruption products from the 1991 eruption of Mt. Pinatubo, Philippines.



# Thank you for listening!



(if you have any questions, please feel free to ask me after this session!)

