

Public Customized Training Course on
‘Geochemistry of sedimentary Ore-Forming Processes’

		(Venue : Ara room)
Date/Time	Program Description	Remarks
7.20 (Mon)	Registration and orientation	IS-Geo
09:50-10:00		
7.20 (Mon)	Hydrothermal ore deposits and sedimentary environments	
10:00-11:00	(1) Hydrothermal fluids in sedimentary basins	Prof. Ho-Wan Chang (Seoul National Univ.)
11:10-12:10	(2) Other fluids in the Earth’s crust and their origins	
<i>12:10-13:10</i>	<i>Lunch</i>	
13:10-14:10	(3) The movement of hydrothermal fluids in the Earth’s crust	
14:20-15:20	(4) Further factors affecting metal solubility	
15:30-16:30	① The important metal–ligand complexes in hydrothermal solutions	
16:40-17:40	② The nature of metal–ligand complexes and Pearson’s Principle	
7.21 (Tue)	(5) Precipitation mechanisms for metals in solution	
10:00-11:00	① Physico-chemical factors affecting metal precipitation	Prof. Ho-Wan Chang (Seoul National Univ.)
11:10-12:10	② Acid-Base Reactions	
<i>12:10-13:10</i>	<i>Lunch</i>	
13:10-14:10	③ Dissolution	
14:20-15:20	④ Adsorption	
15:30-16:30	⑤ Complexation	
16:40-17:40	⑥ Biomineralization	
7.22 (Wed)	(6) Redox reactions	
10:00-11:00	① Standard electrode potentials	Prof. Ho-Wan Chang (Seoul National Univ.)
11:10-12:10	② Examples of redox reactions	
<i>12:10-13:10</i>	<i>Lunch</i>	
13:10-14:10	③ Eh-pH diagram 1	
14:20-15:20	④ Eh-pH diagram 2	
15:30-16:30	⑤ Eh-pH diagram 3	
16:40-17:40	⑥ Eh-pH diagram 4	
7.23 (Thu)	(7) More on fluid/rock interaction – hydrothermal alteration	
10:00-11:00	① Types of alteration and their ore associations	Prof. Ho-Wan Chang (Seoul National Univ.)
11:10-12:10	② Metal zoning and paragenetic sequence	
<i>12:10-13:10</i>	<i>Lunch</i>	
13:10-14:10	(8) Modern analogues of ore-forming processes	
14:20-15:20	① Modern analogues for VMS mineralization processes	
15:30-16:30	② Modern analogues for SEDEX mineralization processes	
16:40-17:40	③ The Salton Sea and Red Sea geothermal systems	
7.24 (Fri)	(9) Ore deposits associated with near surface meteoric fluids – Uranium deposits in sedimentary basins	
10:00-11:00	① The aqueous transport and deposition of uranium	Prof. Ho-Wan Chang (Seoul National Univ.)
11:10-12:10	② Uranium species and Eh-pH diagram	
<i>12:10-13:10</i>	<i>Lunch</i>	
13:10-14:10	③ Unconformity-related uranium deposits	
14:20-15:20	④ Tabular uranium deposits	
15:30-16:30	⑤ Roll-front uranium deposits	
16:40-17:40	Summary and further reading	

※ The working language is Korean.(강의는 한국어로 진행됩니다.)