

223 M1140 (223 D1140)

高等分析化學(專論)二 (3 學分) 註：電化學
(Discussion in)Advanced Analytical Chemistry (II)(3)

中文	英文
<p>一、課程說明 本課程說明電化學分析的基本原理、實驗方法、偵測模式和儀器組裝，並介紹電化學在現代科技的應用。</p> <p>二、課程內容 本課程之內容包括電化學原理和基本觀念、伏特法、安培法、庫倫法、伏安極譜法、伏安法、光譜電化學、電熱力學、電動力學、電化學儀器、離子選擇電極、電化學偵測器、微電極、氧還滴定、液界電位、電解、雙電層、電子傳遞、物質移動、擴散現象、電極表面現象、修飾電極。</p>	<p>I、Course Description The course is designed to provide the students with the theoretical background, experimental approaches, detection techniques, instrumental designs, and applications of important electroanalytical methods.</p> <p>II、Course Content The content of the course includes background theory and operation principles of electrochemistry, potentiometry, amperometry, coulometry, polarography, voltammetric methods, spectroelectrochemistry, electrochemical thermodynamics, electrochemical kinetics, electrochemical instrumentation, ion selective electrodes, electrochemical sensors, microelectrodes, redox titrimetry, liquid junction potential, electrolysis, electrical double layer, electron transfer, mass transfer, diffusion, electrode surface phenomena, and chemically modified electrodes.</p>

