

Abstract Submitted  
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**From Spectrum Analysis to Spectrochemical Analysis: Redefining the Boundary of Spectroscopy** MINA PARK, Program in History and Philosophy of Science, Seoul National University — In 1930s-1940s, there were attempts to redefine the boundary of spectroscopy. First, spectroscopists who had been mainly trained as physicists tried to extend an area of spectroscopy beyond physics and physical astronomy by providing diverse examples of how to use spectroscopy in many fields of sciences and industry. Second, some spectroscopists attempted to redefine their professional identity within physics by organizing a new society for applied spectroscopy and trying to separate from optical society. Third, instrument makers helped to decrease resistance for spectroscopy to enter new fields by making more usable spectrometers for who didn't have expertise in spectroscopy. Why did spectroscopists try these attempts in 1930s-1940s? Why did spectroscopy try to change its boundary within physics and beyond physics? In 1930s, spectroscopists should find out new sets of problems as the golden age of spectroscopy which was brought by quantum mechanics had been over. They found new opportunities in spectrochemical analysis which analyzed materials by spectrum and as spectrochemical analysis was more effective in chemistry, biology and metallurgy rather than in physics, they tried to redefine spectroscopy's boundary and their professional identity. In addition, instrument makers' interests to extend a spectrometers market also contributed for this change.

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