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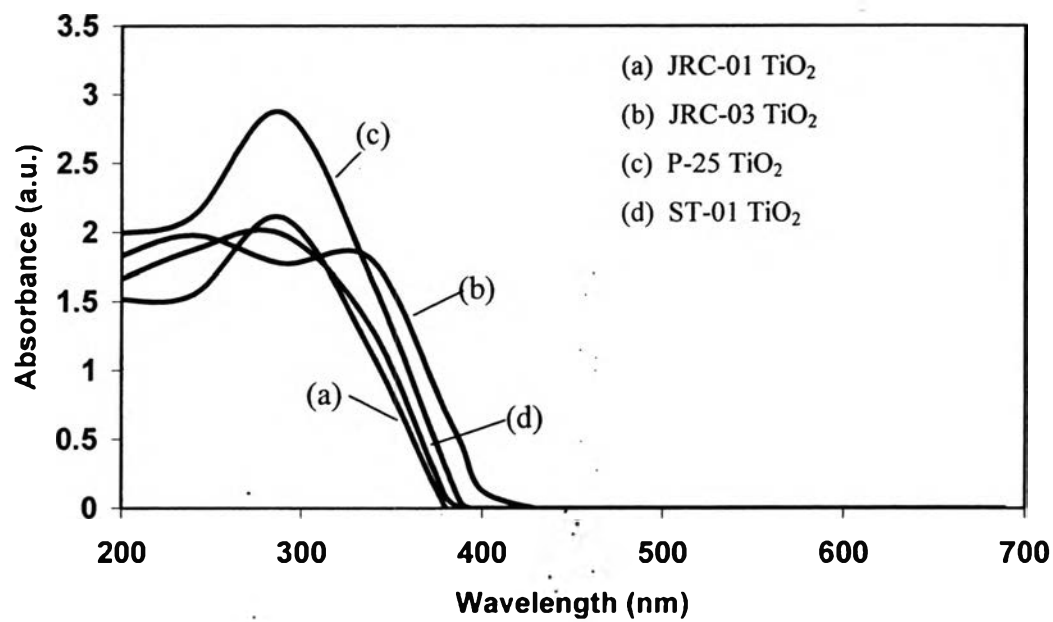
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## APPENDICES

### Appendix A The UV-Vis Spectroscopy



**Figure A1** UV-Vis spectra of commercial photocatalysts (a) JRC-01 TiO<sub>2</sub>, (b) JRC-03 TiO<sub>2</sub>, (c) P-25 TiO<sub>2</sub>, and (d) ST-01 TiO<sub>2</sub>

## Appendix B Crystallite Size of Photocatalyst

The average crystallite size was calculated from the line broadening of X-ray diffraction peak using the Sherrer formula as expressed by the following equation:

$$L = k\lambda/\beta\cos\theta$$

where L is the crystallite size, k is the Sherrer constant usually taken as 0.89,  $\lambda$  is the wavelength of the X-ray radiation (0.15418 nm for  $\text{CuK}\alpha$ ), and  $\beta$  is full width at half maximum (FWHM) of diffraction peak measured at  $2\theta$ .



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