Nanoscience Based Supplementary Items for ACS Exams Institute Assessment Materials.

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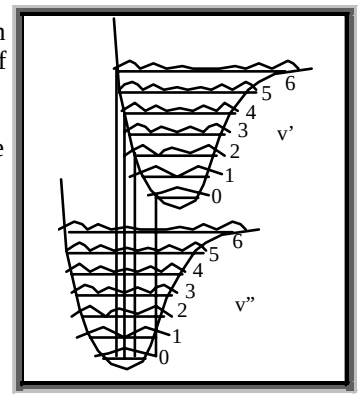
ACS Exams represent an artifact of the chemistry curriculum and as such, they affect curriculum development and reform of content coverage. This project will provide the opportunity for those who use nanoscience examples for chemistry teaching in Analytical, Inorganic, Organic and Physical Chemistry to include nanoscience in their standardized assessment of student knowledge. Test items that use nanoscience to present "standard" content coverage in these areas will be produced and distributed to those who purchase ACS Exams.

On-line statistical tools will allow the instructor to judge how the use of supplementary items affects scores for the standardized assessment as a whole.

Traditional Item

E1. The most intense transition for the UV–vis spectrum of a diatomic molecule for which the two electronic potential energy curves are shown here is



(A) v" = 0 → v' = 0 **(B)** v" = 0 → v' = 2

(C) v" = 0 → v' = 4 **(D)** v" = 0 → v' = 6

Nanoscience Item

E2. Which illustration depicts a working STM system?

(A)