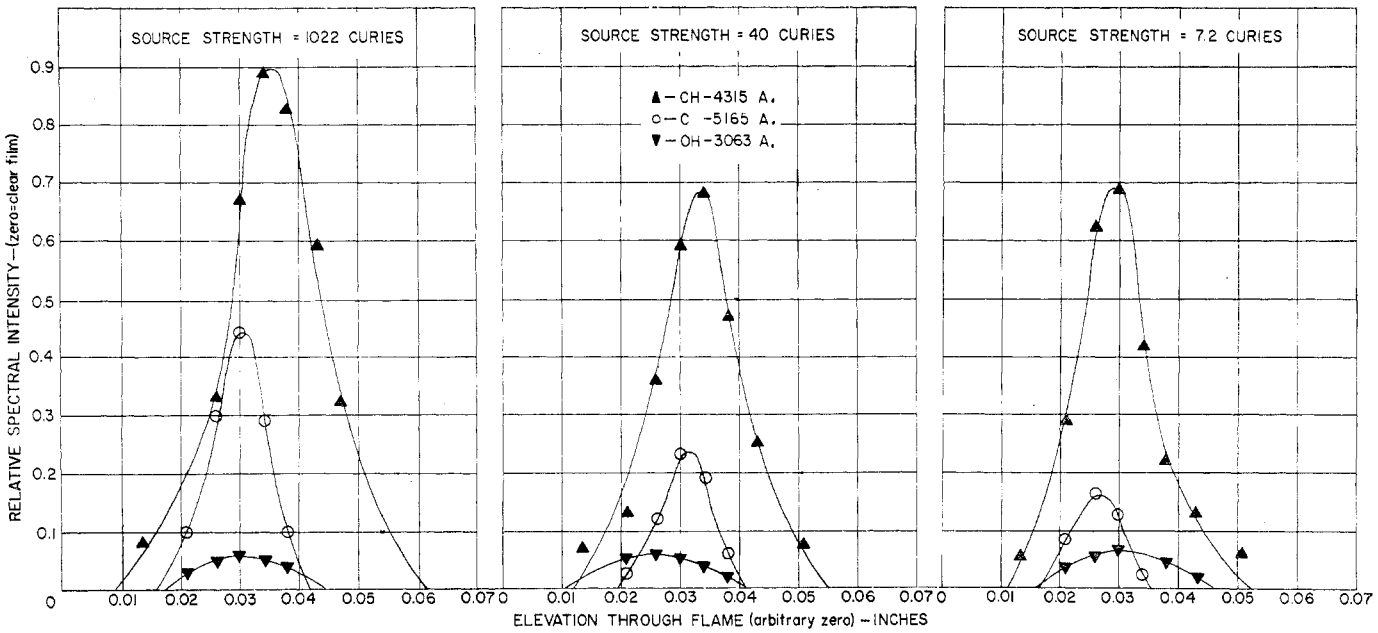

Figure 8. Comparison of emission at 3063, 4315, and 5165 A. in irradiated flames

Tank pressures = 14 inches of mercury absolute
Propane-air mass ratio = 0.08

The elevations at which the maxima occur are plotted *vs.* source strength for a propane-air ratio of 0.08 and pressures of 8 and 14 inches of mercury absolute in Figure 9. Contrary to expectations, the maxima due to C_2 and OH occur at about the same elevation, and the maxima due to CH occur at a higher elevation. This suggests the possibility that carbon monoxide is formed in flames by the reaction

$$C_2 + OH \leftrightharpoons CH + CO$$

In view of contrary evidence from previous work, more information is needed before a positive conclusion can be drawn.

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Literature Cited

(1) Churchill, S. W., Weir, Alexander, Jr., Gealer, R. L., Kelley, R. J., IND. ENG. CHEM. **49,** 1419–22 (1957).
(2) Churchill, S. W., Weir, A., Jr., Ornella, L. F., Gealer, R. L., Kelley, R. J., Gluckstein, M. E., Univ. Mich. Eng. Research Inst. Rept. **2288-6-T,** AFOSR-TN-56-17 (December 1955).
(3) Emmons, A. H., Phoenix Memorial Laboratory, Ann Arbor, Mich., private communication.
(4) Gaydon, A. G., Wolfhard, H. G., "Flames, Their Structure, Radiation, and Temperature," Chapman and Hall, London, 1953.
(5) Lewis, W. B., Phillips Petroleum Co., Idaho Falls, Idaho, private communication.
(6) Weir, A., Jr., IND. ENG. CHEM. **45,** 1637 (1953).
(7) Weir, A., Jr., Morrison, R. B., Univ. Mich. Eng. Research Inst. Rept. **2054-3-F** (September 1954).

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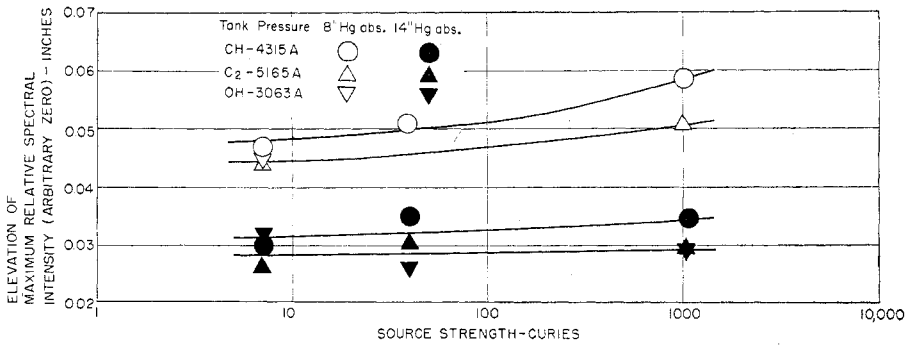

Figure 9. Effect of radiation on location of maximum emission at 3063, 4315, and 5165 A.

Propane-air mass ratio = 0.08

Corrections

Distillation Improvement

In the article, "Distillation Improvement by Control of Phase Channeling in Packed Columns," by R. E. Manning and M. R. Cannon [IND. ENG. CHEM. **49,** 347 (March 1957)], the present address of R. E. Manning should read:

Cannon Instrument Co.
State College, Pa.

University Park, Pa., applies only to the Pennsylvania State University.

Flotation

In the Unit Operations Review on Flotation [IND. ENG. CHEM. **49,** 496 (1957)] reference 3D should have cited U. S. Patent **2,747,733.**