to occur in the spectral region 619 to 614 mμ. Although no fluorescent band is found within this wavelength range in *ethereal* solution of Zn coproporphyrin, we find the fluorescence bands of alkaline aqueous solution of this compound at mμ 629, 619-613, and 583.5. The most intense of these, with its maximum about 615 mμ, corresponds thus in position with the fluorescent band of the living bacteria.

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Intercellular pH Change Cannot be the Pain Factor in Ischemic Work.

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Using a capillary glass electrode in human extensor digitorum communis muscles carrying an ergograph load of 600 gm. the pH changes between the muscle fibers were determined before and after ischemic work by the method detailed in a previous publication.[1]

With the arm rendered ischemic by a brachial pressure of 160 mm. of mercury work was done until pain appeared. Simultaneously, work was stopped and pressure released. Within 10 seconds pain had disappeared, but maximal intercellular acidity was not reached before 30 to 40 seconds had elapsed. If pH continues to fall after pain ceases intercellular pH fall cannot be the cause of pain.

In another type of trial ischemic work was done until pain appeared, work was stopped and pressure released until acidity reached a plateau. Pressure was then again applied. Intercellular pH again started to fall markedly, far below the previous plateau yet the pain did not reappear. If acidity greater than that present with the pain can be created without pain under the same circumstances, then intercellular pH change cannot be the cause of the pain.

If the sensory endings responsible for ischemic pain lie within the muscle cell pH change might still be the cause of the pain, as there is no proof that intracellular and intercellular pH are identical.

[1] Maison, G. L., Orth, O. S., and Lemmer, K. E., *Am. J. Physiol.*, 1938, **121**, 311.