

Fig. 1. Diagram showing a typical time course of the artero-venous differences (Ca-Cv) of the tracer concentrations during inhalation of NO in the application of the Kety & Schmidt method, for measuring rates of blood flow per unit of mass of brain tissue (F/W). The area between the curves is numerically equivalent to the integral in the operational equation. Cv = venous concentration of NO in the giugular vein at time T (typically 10 min).  $\lambda =$  partition coefficient for NO between blood and brain tissue.



Fig. 2. Images refer to the occipital cortex from a monkey with both eyes open (A), both eyes closed (B), and one eye opens (C), showing the functional ocular dominance columns (Kennedy et al. 1975). Optical densities for any area of interest is converted in tissue concentrations of the isotope on the basis of a set a calibrated standards (not shown). The tissue concentration of the isotope is converted in concentrations of the metabolic product 14C2-deoxyglucose-6-phosphate, and in rates of glucose utilization according to the operational equations of the methods, which also defines the parameters to be measured in the blood during the experimental period.