Comparison of a molecular map and haemoglobin diagram referenced as "Fingerprints. Haemoglobin A + A2"

Contributors

Gratzer, W. B. (Walter Bruno), 1932-

Publication/Creation

February 1963

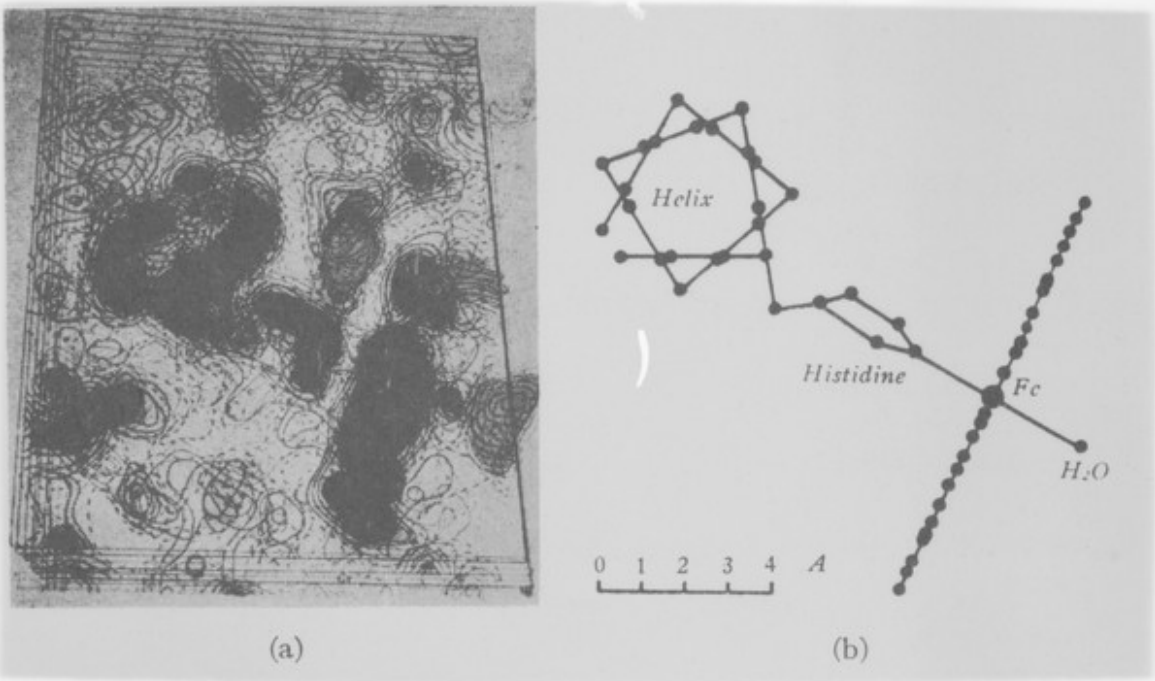
Persistent URL

https://wellcomecollection.org/works/fev5yeqk

wellcome collection

Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
https://wellcomecollection.org

analysis shows only four prolines in this type of myoglobin (137), whereas there are seven "corners." Two more prolines have been identified in the



(a) (b)

density within this plane is very similar to that calculated from the known atomic arrangement seen at 2 A resolution. As had long been believed on chemical grounds, the iron atom appears to be linked to the protein by coordination with a nitrogen atom of a histidine side chain, whereas the sixth coordination position, presumably occupied by the oxygen molecule in oxyhemoglobin, is filled, in metmyoglobin, by a water molecule (Figure 6). Further [illegible] the protein appear to be made through hydrogen bonds from