

of the external appearance of these crystals. He merely gives a resumé of some of the remarks on the substances with which they might be confounded. Indigo, on the addition of Acetic Acid, gives crystals resembling hæmin crystals, but their clear blue colour characterises them. The colouring matter of Sandal-wood, madder, red-ink, seed-lac, and dragon's blood, contained microscopical crystals, which to the unpractised eye might give rise to mistake; but their irregular form, at one time needle shaped, at another quadratic, their obscure outline, and their colour would serve to discriminate. The red ink stains, treated with chloride of Lime and Alum, gave rhombic shaped crystals, but they were colourless, and only here and there had a pale rose colour, which even the addition of water dispelled. The murexide, however, presented greater difficulty, and yielded crystals with or without the addition of Acetic Acid, which in form and colour were very like the hæmin crystals. The difference, however, was established by the fact, that the murexide fluid, evaporated with Acetic Acid is of a bright brick red colour, whereas the fluid of blood so treated is of a dingy brown red tint. On the addition of water, the murexide, evaporated with Acetic Acid passes into a purple red colour; on the addition of Hydro-Chloric Acid, it becomes colourless, and on the addition of an alkali blue; while hæmin crystals are insoluble in the first fluid and become dark green in alkali. In a mixture of murexide with blood and Acetic Acid, a colour less bright red than murexide and brighter than blood was produced. Water and Hydro-Chloric Acid dissolve out the murexide, leaving the hæmin crystals unchanged.—*British and Foreign Medico Chirurgical Review.*

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#### TRANSFORMATION OF CELLULOSE INTO PARCHMENT PAPER.

By the action of concentrated Sulphuric acid on common blotting paper, the latter becomes changed into a tissue closely resembling parchment, nearly as cohesive, and superior to it as it resists the agency of boiling water which parchment is incapable of. The material was called Papyrine, and its manufacture was first reported in the *Journal de Chemie et de Pharmacie* by Messrs. Poularède & Figuier, for 1847. It is likely, no doubt, to constitute a valuable substitute for parchment in very many of the uses to which that material is put, especially for printing and writing purposes.—*Poggén. Annalen.*

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#### ON THE EQUIVALENTS OF MANGANESE AND NICKEL.

The equivalent of Manganese was determined by Berzelius, from two analyses of the Chlorid to be 27.56. Von Hauer determined, as the mean result of nine experiments after the reduction of the Anhydrous Sulphate by Sulphuretted Hydrogen, to the condition of Sulphide, the chemical equivalent to be 27.5. Dumas fixed it at 26.0 after reducing the artificial peroxyde to protoxyde by Hydrogen. Later experiments induced him to adopt the number 27.5. The most late experiments of Schneider, and Rawack, confirm the general accuracy of the experiments and results of Berzelius, establishing 27.009 as its true equivalent. Schneider has determined the equivalent of Nickel to be 29.