

**Abstract:** In our laboratory we have developed a micro-fading tester, a device capable of performing non-destructive accelerated fading tests on submillimetre areas of coloured materials. The original purpose of these micro-fading tests was to provide rapid 'screening' of the colourants present on artifacts and to identify those having extreme sensitivity to visible region light exposure. Recent field tests have made it clear that another important application of these test results is the prediction of colour changes that would result from light exposure in particular exhibition conditions and schedules. In this paper we explore the accuracy of the micro-fading tests, and the factors that affect that accuracy. An overall judgment of the use of micro-fading test results and the prospects for future refinement of the tests are discussed.