3) Secondary aggregation is negligible.

The technique is simple and can be used in the clinic without special equipments. The results are discussed.

J. F. Stoltz, A. Larcan, J. F. Batoz and F. Streiff (C. R. T. S. Brabois F 54500 Nancy – Vandoeuvre, France): **Light Scattering and Platelet Aggregation.**   (249)

After a short recall of the theories concerning nephelometry and light scattering, the authors develop their experimental study, which is divided into three parts:
– platelets absorption i.e. wave lengths
– light variation curves transmitted or scattered according to platelet concentration
– aggregation by nephelometric method and by light scattering.

These experiments allow the authors to conclude that platelets do not present a specific absorption; that the variations of the light transmitted or scattered is exponential in function of the platelet concentration and that the aggregation test affords essentially a measurement of the decrease of the number of free platelets in the medium.

Besides, they observe that the measures of aggregation kinetics, or the problem of platelet shape change are not specific and should be investigated with the help of other methods.

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N. Clarke and V. McCabe (Depts. Path. and Mech. Eng., University Coll., Dublin, Ireland): **Automated Monitoring of Platelet Aggregation in Multiple Samples of whole Blood.**   (250)

Whole blood may be first agitated in a circular transparent rotor chamber, and then rotated continuously to produce plasma/red cell separation for monitoring. The rotor is driven by a low inertia, printed circuit d.c. motor (108 Watt) which is automatically controlled. The pattern of rotation is determined by a signal generator which provides various waveforms at adjustable frequencies and also at fixed speeds.

By segmenting the rotor into multiple cuvettes (Vol = 0.4 ml) it is possible to monitor the platelet concentration, after agitation, as each cuvette spins through the stationary optical system. This consists of a light-emitting diode (peak: 900 nm), pulsed at 10 kHz in order to eliminate ambient light effects, and a photodetector with a built-in amplifier, fed to an amplifying circuit which eliminates other signals. An electronic circuit permits selection of the signal from each cuvette on a direct reading meter. Cuvette No. 1 is identified by a photocell-detector trigger.

Platelet-free plasma is about zero O. D. in the infra red with respect to a water blank, and with attention to specific criteria such as optical geometry and light path, platelet concentration may be accurately determined.

A. H. Sutor (Universitäts-Kinderklinik, 78 Freiburg, Germany FR): **Diagnostic Information by Haemorrhagometry.**   (251)

A new vivo method to measure bleeding time, bleeding intensity and blood loss from a standardized small skin wound was developed by Sutor, Bowie, and Owen at the Mayo Clinic. At *room temperature* (24° C) bleeding time is prolonged in patients with quantitative and qualitative platelet deficiencies. Patients with Morbus Willebrand show a prolonged bleeding time and an abnormally high bleeding intensity. Patients with reduced capillary resistency (M. Davis and allergic diathesis) have increased bleeding intensity but normal bleeding time. Aspirin and Dipropyl-Acetate increase the blood loss, prednisone reduces the bleeding intensity. When haemorrhagometry is performed at 17° C *(cold tolerance test)* bleeding time is pathologically increased in haemophiliacs and in most carriers of haemophilia. If an already closed wound is heated to 43.5° C it starts bleeding again in control subjects, the average *heat lysis time* is 1.03 min (SD: 0.16 min). In patients with thrombocytic haemorrhagic tendencies the heat lysis time is shortened; a connection between prolonged heat lysis time and hypercoagulaemia has been shown in some cases.