

ACKNOWLEDGEMENTS

The author would like to express his gratitude to Professor P. B. Moon and Dr. G. R. Isaak for their interest, support, and valuable guidance during the course of the work reported in this thesis.

The work was performed in collaboration with Dr. G. R. Isaak and Dr. J. H. Broadhurst. During the author's stay at the University of Birmingham, he enjoyed the help of many members of the department and would like to express his special gratitude to Mr. D. B. Smart for machining the rotor structure, Mr. J. B. Saul for machining the rotor, Mr. D. Newton for making the proportional counters and assisting with modifications to the rotor structure, Mr. L. Terry for building the battery charger and the electronic gates for the kicksorter, Mr. F. W. Jukes for preparing the photographs, and Miss E. B. Smith for the careful typing of this thesis.

He is also grateful for the valuable advice received from Mr. G. H. Guest and Mr. J. Harling during the building of the rotor structure and from Dr. J. H. Broadhurst in developing some of the electronic circuitry. Special thanks are due to his father, Mr. F. K. Preikschat, who provided the preliminary circuits for the magnetic suspension of the rotor and who also provided several operational amplifiers at a time when they were not yet available in this country.

Finally he would like to thank Dr. G. R. Isaak and Dr. Ů. Isaak for their friendly assistance throughout his stay and is grateful to his fiancé for her great moral support during the preparation of this thesis.