

CONTENTS

FIRST SESSION

1. Powder production by fine milling	3
2. Discussion	23
3. The physical and chemical production of powders by controlled precipitation	29
4. Discussion	41
5. Recovery and processing of natural powders	44

SECOND SESSION

6. The surface energy of solids	53
7. Discussion	71
8. The adsorptive properties of powders	79
9. Discussion	93
10. Influence of liquid films on adhesion between particles of powders	102
11. Electrical properties of powders	115
12. Discussion	127
13. Particle shape, size and surface area	130
14. Discussion	141
15. Flow properties	150
16. Discussion	164

THIRD SESSION

17. Pigments and fillers for use in paints	169
18. Discussion	182
19. Pigments and extenders for use in inks	185
20. Discussion	192
21. Fillers and pigments for use in rubber and plastics	195
22. Discussion	203
23. Whiting fillers and extenders	206

FOURTH SESSION

24. Building cements	215
25. Ceramics	233
26. Discussion	244
27. Powder metallurgy, the manufacture and testing of metal powders	246
28. Discussion	262
29. Some aspects of the use of powders in bituminous road materials	264
30. Discussion	272
31. Discussion of three preceding papers	272

FIFTH SESSION

32. Detergent powders	277
33. Powders in the cosmetics industry	286
34. Fine powders and the pharmaceutical industry	291
35. Discussion	302
36. Some properties of powders used in pesticides	307
37. Discussion	319
38. Powders in the paper industry	323
39. Discussion on the five preceding papers	333

SIXTH SESSION

40. Role of size, shape and nature of particles in soil mechanics	339
41. Coal	350
42. Discussion	362
43. Properties of powders used in explosives	366
44. Mineral dressing	373
45. Discussion	384
46. The properties of powders utilised in drilling fluids	390
47. Discussion	400

SEVENTH SESSION

48. Scientific principles employed in powder technology	405
49. Discussion	410
50. Methods of production and control	415
51. Discussion	423
52. A Survey of powder applications	429
53. Discussion	438
54. Studies on the progress of solution of a ground material	441