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5.1. Volume Changes of Compacts in the Cu-Sn System5.2. Dilatometric and Structural Studies of Liquid-Phase Sintering in the Cu-Sn System; 5.3. Volume Changes in Cu-Al Compacts; 5.4. Aluminium Bronze, Parts made from which Change Little in Size during Sintering; CHAPTER 6. Al-Cu SYSTEM WITH HIGH SOLUBILITY IN THE LIQUID PHASE; 6.1. Volume Changes of Al-Cu Compacts during Sintering; 6.2. Effect of Porosity upon Volume Changes; 6.3. Effect of Aluminium Particle Size; 6.4. Alloy and Structure Formation; 6.5. Sintering in the Presence of a Large Amount of Liquid Phase; 6.6. Exothermal Sintering 6.7. Optimisation of Liquid-Phase Sintering Regimes6.8. Possibility of Decreasing Compact Growth during Sintering; CHAPTER 7. SINTERING OF ALUMINIUM WITH TRANSITION METALS; 7.1. Liquid-Phase Sintering of the Al-Cr System; 7.2. Liquid-Phase Sintering of the Al-Ti System; 7.3. Liquid-Phase Sintering of the Al-Ni System; 7.4. Liquid-Phase Sintering of the Al-Fe System; CONCLUSION; References

Sommario/riassunto

The aim of this publication is to acquaint those readers who are interested in the fundamentals of powder materials sintering, with the latest scientific achievements which are important to its successful practice. The book contains new information, not previously known in the West, as well as offering a totally fresh view of this vital issue. The work discloses to western eyes a new scientific trend in the science of sintering systems with interacting components; a trend of which many experts are unaware. The new approach will considerably enrich and advance investigations into the theory and

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