

U.S. DEPARTMENT OF ENERGY
FOSSIL ENERGY
ADVANCED RESEARCH AND TECHNOLOGY DEVELOPMENT

PUBLICATIONS
OF THE
FOSSIL ENERGY
ADVANCED RESEARCH AND TECHNOLOGY DEVELOPMENT
MATERIALS PROGRAM

April 1, 1993, through March 31, 1995

Compiled by

Paul T. Carlson

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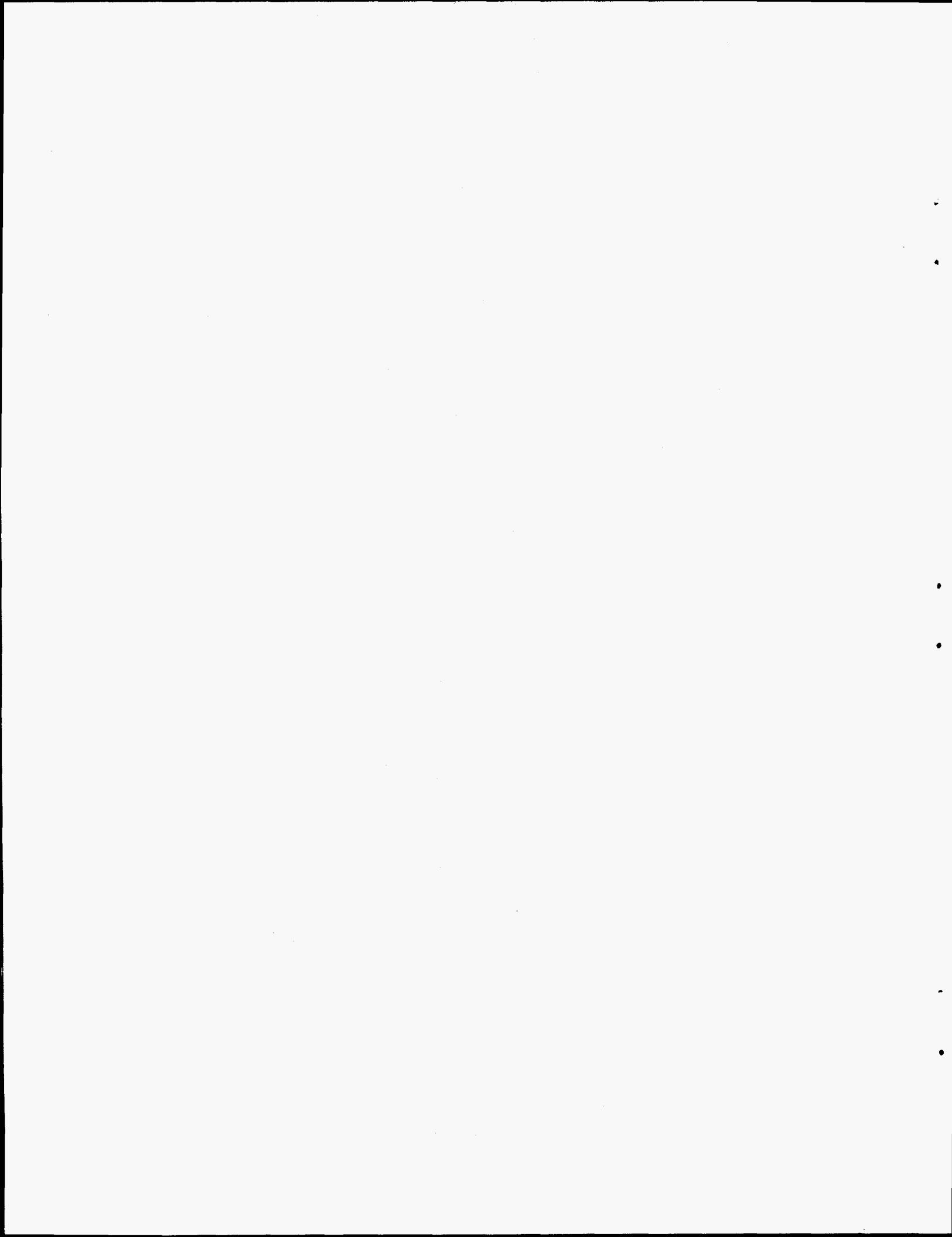
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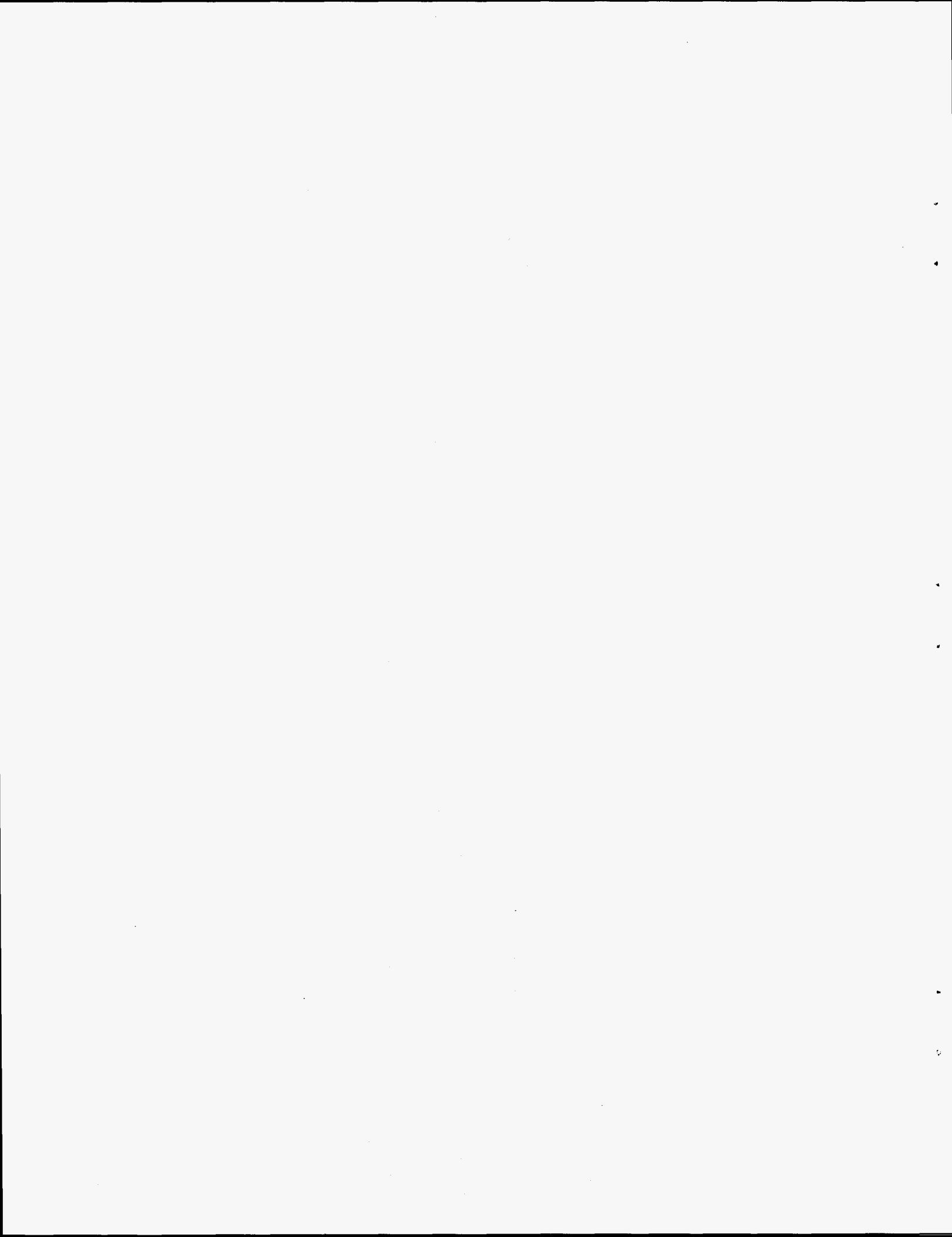
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**PUBLICATIONS OF THE FOSSIL ENERGY
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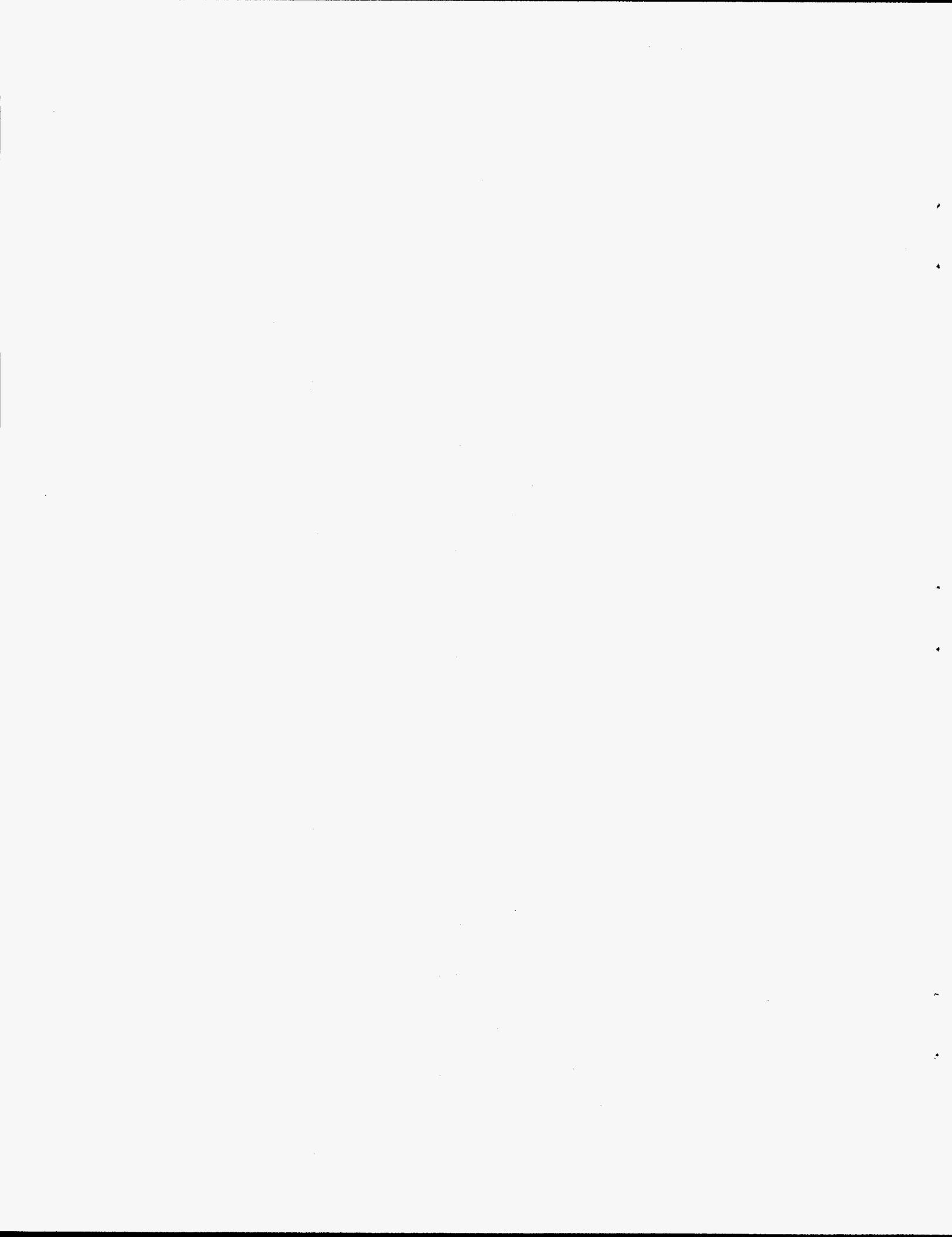
1. INTRODUCTION

The objective of the Fossil Energy Advanced Research and Technology Development (AR&TD) Materials Program¹ is to conduct research and development on materials for fossil energy applications, with a focus on the longer-term needs for materials with general applicability to the various fossil fuel technologies. The Program includes research aimed at a better understanding of materials behavior in fossil energy environments and on the development of new materials capable of substantial improvement in plant operations and reliability. The scope of the Program addresses materials requirements for all fossil energy systems, including materials for coal preparation, coal liquefaction, coal gasification, heat engines and heat recovery, combustion systems, and fuel cells. Work on the Program is conducted at national and government laboratories, universities, and industrial research facilities.

This bibliography covers the period of April 1, 1993, through March 31, 1995, and is a supplement to previous bibliographies in this series (see page iii).

It is the intent of this series of bibliographies to list only those publications that can be conveniently obtained by a researcher through relatively normal channels. The publications listed in this document have been limited to topical reports, open literature publications in refereed journals, full-length papers in published proceedings of conferences, full-length papers in unrefereed journals, and books and book articles. Oral presentations, periodic progress reports, management reports, letter reports, abstracts, and summaries have not been included.

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2. PROGRAM DEVELOPMENT AND TECHNOLOGY TRANSFER

2.1 GENERAL PROGRAM

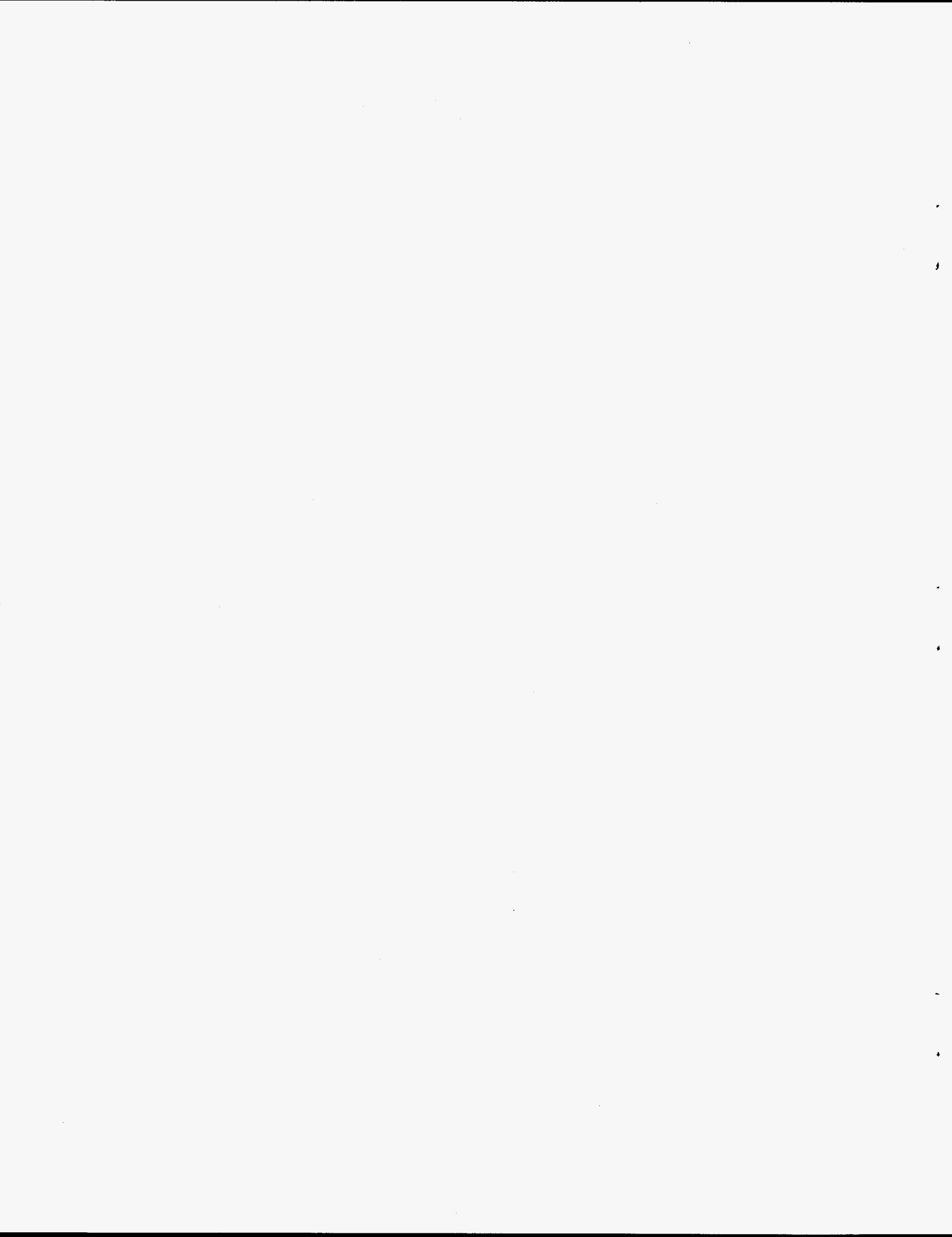
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J. K. Wright and R. N. Wright, "The Influence of Thermomechanical Processing on Microstructure and Properties of Iron Aluminides," pp. 209-18 in *Proceedings of the Seventh Annual Conference on Fossil Energy Materials, Oak Ridge, Tennessee, May 11-13, 1993*, CONF-9305135, ORNL/FMP-93/1, comp. N. C. Cole and R. R. Judkins, Martin Marietta Energy Systems, Inc., Oak Ridge Natl. Lab., July 1993.

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R. N. Wright, J. K. Wright, C. H. Sellers, T. A. Hyde, and T. K. O'Brien, "Phase Transformations in Fe₃Al Alloyed with Ti and Cr," to be published in *Proceedings of the TMS Symposium on Mechanical Properties and Phase Transformations in Multi-Component Intermetallics, Rosemont, Illinois, October 2-6, 1994*, The Metallurgical Society, Warrendale, Pa., 1995.

3.3 JOINING

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3.4 COATINGS DEVELOPMENT

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