

THE UNIVERSITY OF CHICAGO

DEPARTMENT OF CHEMISTRY

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THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

PHYSICS 354

LECTURE 1

STATISTICAL MECHANICS

LECTURER: JOHN H. COLEMAN

DATE: 1998

TOPIC: THE CANONICAL ENSEMBLE

OBJECTIVES: TO UNDERSTAND THE CONNECTION BETWEEN MICROSCOPIC STATES AND THERMODYNAMIC PROPERTIES.

KEYWORDS: ENSEMBLE, PARTITION FUNCTION, THERMODYNAMIC POTENTIALS.

REFERENCES: T. L. DEWITT, PHYSICS OF PARTICLES AND NUCLEI, 2ND EDITION, JOHN WILEY & SONS, 1984.

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NOTES: THESE NOTES ARE INTENDED AS A GUIDE TO THE LECTURES AND SHOULD NOT BE USED AS A SUBSTITUTE FOR THE TEXT.

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