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Temperature and Velocity Structure of Air Above a Heated Plate **The Atmosphere and Climate of Mars Willamette River Temperature Control Study, Celective Withdrawal Structure for McKenzie Subbasin Temperature and Density Structure of Water Along the California Coast** Mechanical Fasteners for High Temperature Structure Experiment and Calculation of Reinforced Concrete at Elevated Temperatures **10 Year Time Series of the Upper Ocean Temperature Structure at Station P** Synthetic 3-D Atmospheric Temperature Structure **The Gulf of Maine Temperature Structure Between Bar Harbor, Maine, and Yarmouth, Nova Scotia The Influence of Temperature on the Domain Structure and Movements in Alpha-iron Small Scale Temperature Structure of the Upper Ocean** Composition and Temperature Effects on Aluminoborosilicate Glasses Structure and Properties *The Fine Structure of Velocity and Temperature Measured in the Laboratory and He Atmospheric Marine Boundary Layer* Flow and Structure at Constant Temperature in a Superplastic Fe-Al-Mn-C Alloy **Ozone and Temperature Structure in a Hurricane** *The Temperature Structure of a Mid-latitude, Dimictic Lake During Freezing, Ice Cover, and Thawing* Influence of Impurity Elements, Structure, and Prestrain on Tensile Transition Temperature of Chromium On Rapid Changes and Periodic Temperature Structure in Thermal Plumes **The influence of spatially heterogeneous soil temperatures on plant structure and function** *Joint Measurements of Wind and Temperature Structure in the Winter Mesosphere at High Latitudes* **The Structure of an Atmosphere from On-board Measurements of Pressure, Temperature, and Acceleration Temperature Variation of the Structure Factor of Liquid Helium** **Trends in Ozone and Temperature Structure** *The temperature structure of early type model stellar atmospheres* **THE TEMPERATURE STRUCTURE WITHIN THE FIRST 150 METERS OF DEPTH OF THE LIGURIAN SEA AND ITS SEASONAL VARIATIONS DURING THE YEARS 1960- 1967. PART I: TEXT AND APPENDICES. PART II: FIGURES. The Temperature Structure Within the First 150 M of Depth of the Ligurian Sea and Its Seasonal Variations During the Years 1960-1967. Part I. Text and Appendices** *Measured Temperature Structure in Noctilucent Clouds Surface Layer Temperature Structure as Evidence for Rossby Waves Southwest of Bermuda* **Effect of the Temperature Fluctuations on the Dynamical Structure Factor for Liquid Pb and Bi** *The Effect of Temperature on the Structure of Soapstone* Project SQUID, Changes in Martensite Structure as a Record of Temperature **The Temperature Dependence of the Structure and Dynamics of Solid Benzene** *Observation on the Winter Temperature Structure of the St. Lawrence River Correlations Between High Temperature Creep Behavior and Structure* **X-ray Study of the Structure of Cokes Carbonized at Different Temperatures Errors in Atmospheric Temperature Structure Solutions from Remote Radiometric Measurements** *Intermittency of the Fine Structure of Turbulent Velocity and Temperature Fields Measured at High Reynolds Number Vertical Temperature Structure of Calgary's Urban Heat Island* **A Comparison of Laboratory Measured Temperatures with Predictions for a Spar/skin Type Aircraft Structure Effect of Air Preheat Temperature and Oxygen Concentration on Flame Structure and Emission**

Experiment and Calculation of Reinforced

Concrete at Elevated Temperatures Sep 15 2022 Concrete as a construction material goes through both physical and chemical changes under extreme elevated temperatures. As one of the most widely used building materials, it is important that both engineers and architects are able to understand and predict its behavior in under extreme heat conditions. Brief and readable, this book provides the tools and techniques to properly analysis the effects of high temperature of reinforced concrete which will lead to more stable, safer structures. Based on years of the author's research, Reinforced Concrete at Elevated Temperatures four part treatment starts with an unambiguous and thorough exposition of the mechanical behaviors of materials at elevated temperature followed by a discussion of Temperature field of member sections, Mechanical behaviors of members and structures at elevated temperature, ending with Theoretical analysis and practical calculation methods. The book provides unique insight into: Coupling thermal-mechanical constitutive relation of concrete Exceptional analyses of beams and columns of rectangular section with three surfaces and two adjacent surfaces exposing to high temperature Measurement and analysis of redistribution of internal forces of statically indeterminate structure during heating-loading process Finite element analysis and calculation charts for two-dimensional temperature field of structural members Finite element analysis and simplified calculation method for reinforced concrete structure at elevated temperature With this book, engineers and architects can effectively analyze the effect of high temperature on concrete and materials which will lead to better designs of fire resistant and damage evaluation and treatment after fire. Tools and techniques for analyzing the effects of high temperature on concrete and reinforcement materials. Measurement and analysis of redistribution of internal forces of statically indeterminate structure during the heating-loading process. Finite element analysis and calculation charts for two-dimensional temperature field of structural members. Finite element analysis and simplified calculation method for reinforced concrete structure at elevated temperature.

Effect of Air Preheat Temperature and Oxygen Concentration on Flame Structure and Emission Oct 12 2019

A Comparison of Laboratory Measured Temperatures with Predictions for a Spar/skin Type Aircraft Structure Nov 12 2019

The Temperature Structure Within the First 150 M of Depth of the Ligurian Sea and Its Seasonal Variations During the Years 1960-1967. Part I. Text and Appendices Dec 26 2020 The processed bathythermograph (BT) and meteorological data collected in the Ligurian Sea during the years 1960-1967 are presented in tabular and graphical form: BT traces, sea-surface temperatures, isobathytherms along various cross-sections, and isotherms at selected depths. Some measurements of surface currents obtained by geomagnetic-electrokinetograph (GEK) are also presented. (Author).

Effect of the Temperature Fluctuations on the Dynamical Structure Factor for Liquid Pb and Bi Sep 22 2020

The Fine Structure of Velocity and Temperature Measured in the Laboratory and He Atmospheric Marine Boundary Layer Feb 08 2022

Willamette River Temperature Control Study, Celective Withdrawal Structure for McKenzie Subbasin Dec 18 2022

On Rapid Changes and Periodic Temperature Structure in Thermal Plumes Sep 03 2021

The Effect of Temperature on the Structure of Soapstone Aug 22 2020

X-ray Study of the Structure of Cokes Carbonized at Different Temperatures Mar 17 2020

Temperature and Density Structure of Water Along the California Coast Nov 17 2022 A synoptic analysis of the temperature field off the California coast for the surface, 10-meter and 100-meter level is provided for the years 1958-1959. Data used are from CCOFI cruises. These analyses are shown to be adequate for detecting probable upwelling areas. The areas of persistent upwelling are at 29 N, 31 N and 33 N adjacent to the California coast. There appears to be a preference for a steep gradient of the sea floor in these areas. The onset and decay of upwelling appears to depend on latitudinal position of the 11 C isotherm at 100 meters. (Author).

Surface Layer Temperature Structure as Evidence for Rossby Waves Southwest of Bermuda Oct 24 2020

Small Scale Temperature Structure of the Upper Ocean Apr 10 2022

Synthetic 3-D Atmospheric Temperature Structure Jul 13 2022

THE TEMPERATURE STRUCTURE WITHIN THE FIRST 150 METERS OF DEPTH OF THE LIGURIAN SEA AND ITS SEASONAL VARIATIONS DURING THE YEARS 1960-1967. PART I: TEXT AND APPENDICES. PART II: FIGURES. Jan 27 2021

Project SQUID, Changes in Martensite Structure as a Record of Temperature Jul 21 2020

Joint Measurements of Wind and Temperature Structure in the Winter Mesosphere at High Latitudes Jul 01 2021

Flow and Structure at Constant Temperature in a Superplastic Fe-Al-Mn-C Alloy Jan 07 2022

Vertical Temperature Structure of Calgary's Urban Heat Island Dec 14 2019

The Structure of an Atmosphere from On-board Measurements of Pressure, Temperature, and Acceleration May 31 2021

The influence of spatially heterogeneous soil temperatures on plant structure and function Aug 02 2021

The Temperature Structure of a Mid-latitude, Dimictic Lake During Freezing, Ice Cover, and Thawing Nov 05 2021 The temperature structure of Post Pond, a small (46.6 hectares), mid-latitude, dimictic lake in west-central New Hampshire, was studied during autumn, winter and spring of 1968-1969. The lake was instrumented over its maximum depth (11.7 m) with a string of 24 thermocouples which recorded hourly temperatures. Temperatures in 9 m of sediments underlying the lake were measured with a thermistor probe. Secondary and tertiary thermocline development in the epilimnion occurred during short warming periods in the early autumn. The autumn overturn lasted 25 days, whereas the spring overturn lasted only 4 days. The entire lake mixed isothermally in the autumn to 3.2C. During the period of ice cover, the lower 5 m of water gained approximately 51.5 cal/sq cm, which was supplied by stored heat in the bottom sediments. A steady-state thermal gradient of 0.07C/m was found for the deeper sediments underlying the lake during ice cover. Late winter cooling of bottom water under the ice cover may be the result of snowmelt in areas adjacent to the lake causing activation of groundwater influx. Melting of the clear ice portion of the ice cover was primarily the result of heat supplied to the lake from snowmelt water, and occurred on the underside of the ice sheet. Thermal instability of the water mass persisted for 9 days during peak snowmelt runoff; this can be partially explained by an increase in dissolved solids with depth. (Author).

Correlations Between High Temperature Creep Behavior and Structure Apr 17 2020

Temperature Variation of the Structure Factor of Liquid Helium Apr 29 2021 The temperature variation of the structure factor S(q) of liquid helium, where there is the Bose distribution function of the quasiparticles of energy. For every low temperature, the formula predicts that S(q) increases linearly with q starting from a constant, S(O)=kT/m c squared. This trend changes at higher temperatures. Therefore, above around 2.78 K, a minimum of S(q) is expected. These theoretical predictions are in good agreement with the recent experimental data of Sears, Svensson, Woods and Martel based on neutron diffraction and of Hallock obtained by X-ray scattering.

10 Year Time Series of the Upper Ocean Temperature Structure at Station P Aug 14 2022

The Influence of Temperature on the Domain Structure and Movements in Alpha-iron May 11 2022

Composition and Temperature Effects on Aluminoborosilicate Glasses Structure and Properties Mar 09 2022 This works studies the effects of compositional and temperature variations on the structure and properties of aluminoborosilicate glasses. Two groups of aluminoborosilicate glasses, one that has lower boron content and another that has higher boron content, have been studied. The structural changes were mainly observed with high-field B-11, Al-27 and Na-23 magic angle spinning (MAS) nuclear magnetic resonance (NMR) spectroscopy. In these glasses, boron is either three-coordinate (BO3) or four-coordinate (BO4); aluminum exists predominately as four-coordinate species, but there is a small amount of five-coordinate aluminum ([5]Al). The compositional study focused on the effect of the cation field strength of the network modifiers on the glass structure by varying the ratio of the two network modifiers, CaO and Na2O. Increasing the ratio of CaO to Na2O dramatically lowers the fraction of four-coordinated boron (N4), increases [5]Al, and increases the fraction of non-bridging oxygens (NBO), which was calculated based on the boron and aluminum structural information. However, variations in these fractions are not linear with respect to the average cation field strength. Na-23 spectra reveal that the ratio of bridging to non-bridging oxygens in the coordination shell of Na+ increases with an increasing ratio of CaO to Na2O in Ca-rich glasses. These changes can be understood by the tendency of higher field strength modifier cations to facilitate the concentration of negative charges on NBO in their local coordination environment, systematically converting BO4 to BO3. The effect of temperature on the structure was studied by two ways: cooling the glass-forming melts at different rates to sample the glass structure at different fictive temperature, and using high-temperature in situ NMR. The abundances of BO3 and NBO increase with increasing fictive temperature, suggesting that the reaction BO4 [logical equivalence] BO3 + NBO shifts to the right with increasing temperature. The observed temperature dependence of the abundance of BO4 species allows us to estimate the enthalpy of reaction, [Delta]H, which is closely related to the amount of NBO in the glass. In situ high-T B-11 MAS NMR was used to observe chemical exchange between BO3 and BO4 species over the timescale of microseconds to seconds. The timescale of BO3/BO4 exchange from NMR data, [lowercase Tau](NMR), appears to be "decoupled" from that of the macroscopic shear relaxation process, [lowercase Tau](s), derived from the viscosity data; however, at higher temperatures, [lowercase Tau](s) approaches [lowercase Tau](NMR). The "decoupling" at lower temperature may be related to intermediate-range compositional heterogeneities, and /or fast modifier cation diffusivities, which trigger "unsuccessful" network exchange events.

Measured Temperature Structure in Noctilucent Clouds Nov 24 2020

Influence of Impurity Elements, Structure, and Prestrain on Tensile Transition Temperature of Chromium Oct 04 2021

The Gulf of Maine Temperature Structure Between Bar Harbor, Maine, and Yarmouth, Nova Scotia Jun 12 2022

Observation on the Winter Temperature Structure of the St. Lawrence River May 19 2020

Trends in Ozone and Temperature Structure Mar 29 2021 Comparison of model calculated trends in ozone and temperature due to inferred variations in trace gas concentrations and solar flux, is made with available analyses of observations. In general, the calculated trends in total ozone and the vertical ozone distribution agree well with the measured trends. However, there are too many remaining theoretical and sampling uncertainties to establish causality. Although qualitatively in agreement, the observed temperature decrease in the upper stratosphere is significantly larger than that calculated. Theoretical results suggest a significant influence on stratospheric ozone from solar flux variations, but observational evidence is at best inconclusive. Overall, the trend comparisons tend to be consistent with the hypothesis that several different anthropogenic influences are affecting the present global atmosphere. 7 references, 3 figures, 2 tables.

The Temperature Dependence of the Structure and Dynamics of Solid Benzene Jun 19 2020

Errors in Atmospheric Temperature Structure Solutions from Remote Radiometric Measurements Feb 14 2020

Mechanical Fasteners for High Temperature Structure Oct 16 2022

Temperature and Velocity Structure of Air Above a Heated Plate Feb 20 2023

The Atmosphere and Climate of Mars Jan 19 2023 Humanity has long been fascinated by the planet Mars. Was its climate ever conducive to life? What is the atmosphere like today and why did it change so dramatically over time? Eleven spacecraft have successfully flown to Mars since the Viking mission of the 1970s and early 1980s. These orbiters, landers and rovers have generated vast amounts of data that now span a Martian decade (roughly eighteen years). This new volume brings together the many new ideas about the atmosphere and climate system that have emerged, including the complex interplay of the volatile and dust cycles, the atmosphere-surface interactions that connect them over time, and the diversity of the planet's environment and its complex history. Including tutorials and explanations of complicated ideas, students, researchers and non-specialists alike are able to use this resource to gain a thorough and up-to-date understanding of this most Earth-like of planetary neighbours.

The temperature structure of early type model stellar atmospheres Feb 25 2021

Intermittency of the Fine Structure of Turbulent Velocity and Temperature Fields Measured at High Reynolds Number Jan 15 2020

Ozone and Temperature Structure in a Hurricane Dec 06 2021