International Symposium on Molecular Spectroscopy

ABSTRACT DETAIL (P68)

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Title:	SPECTROSCOPIC CHARACTERIZATION OF BEDROCK\footnote{The author gratefully acknowledges a grant from the Slate Rock and Gravel Company which supported this work.}	Edit
Body:	\begin{wrapfigure}{r}{0pt} \includegraphics[scale=0.3]{fred.eps} \end{wrapfigure} Through careful spectroscopic analysis, we find that bedrock is comprised of a mixture of refractory elements, including silicon, aluminum, and others. In particular, following laser ablation of bedrock, the 3s^{2}3p^2 ^{3}P$_2$ $\rightarrow$ 3s3p^3 ^{5}S$_2$ transition of Si \textsc{i} at 33,102.897 \wn (near 3020 \AA) was observed in emission, clearly indicating the presence of silicon. No transitions from silicon-containing molecules were observed, but B.~Rubble\footnote{Private communication} has suggested a search for the \nub{2} band of \chem{SiO_2} in the infrared. In stratigraphy, bedrock is the common term for consolidated rock underlying the surface of a terrestrial planet, usually the Earth. Above the bedrock is usually an area of broken and weathered unconsolidated mucky mucky in the basal subsoil. The top of the bedrock is known as rockhead and identifying this, via excavations, drilling or geophysical methods, is an important task in most civil engineering projects. Superficial deposits (also known as drift) can be extremely thick, such that the bedrock lies hundreds of meters below the surface. Yabba Dabba Do!!!!!\footnote{This slogan is a registered trademark of Hanna–Barbera Productions.}	Edit
Details:	**Length:** 15 Minutes **Mini Symposium 1:** Beyond the Mass-to-Charge Ratio: Spectroscopic Probes of the Structures of Ions **Mini Symposium 2:** None **Nominations:** Rao Prize: Yes Miller Prize: No **Comments:** Wilma will be so proud.	Edit
Image File:	fred.eps	Upload
Keywords:	1 Application: Biology, natural substances 2 Molecular Target: Condensed phase 3 Technique: Infrared/Raman 4 Molecular Process/Properties: Spectroscopy as an analytical tool	Edit

AUTHOR LIST

Edit

ORDER	SPEAKER	DISPLAY NAME	INSTITUTION	DEPARTMENT	CITY STATE COUNTRY
1	**Yes**	Fred Flintstone	Rubble School of Mines	Departments of Chemistry and Geology	Bedrock USA

TITLE BODY DETAILS KEYWORDS AUTHORS

Validate Abstract for Submission

SPECTROSCOPIC CHARACTERIZATION OF BEDROCK[a]

FRED FLINTSTONE[b], *Departments of Chemistry and Geology, Rubble School of Mines, Bedrock, USA*.

Through careful spectroscopic analysis, we find that bedrock is comprised of a mixture of refractory elements, including silicon, aluminum, and others.

In particular, following laser ablation of bedrock, the $3s^2 3p^2\ {}^3P_2 \rightarrow 3s3p^3\ {}^5S_2$ transition of Si I at 33,102.897 cm^{-1}(near 3020 Å) was observed in emission, clearly indicating the presence of silicon. No transitions from silicon-containing molecules were observed, but B. Rubble[c] has suggested a search for the ν_2 band of SiO_2 in the infrared.

In stratigraphy, bedrock is the common term for consolidated rock underlying the surface of a terrestrial planet, usually the Earth. Above the bedrock is usually an area of broken and weathered unconsolidated mucky mucky in the basal subsoil. The top of the bedrock is known as rockhead and identifying this, via excavations, drilling or geophysical methods, is an important task in most civil engineering projects. Superficial deposits (also known as drift) can be extremely thick, such that the bedrock lies hundreds of meters below the surface.

Yabba Dabba Do!!!!![d]

[a]The author gratefully acknowledges a grant from the Slate Rock and Gravel Company which supported this work.

[b]Wilma will be so proud!

[c]Private communication

[d]This slogan is a registered trademark of Hanna–Barbera Productions.

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Time required: 15 min
Keywords: Biology, natural substances — Condensed phase — Infrared/Raman — Spectroscopy as an analytical tool
Mini-Symposia Requested: Beyond the Mass-to-Charge Ratio: Spectroscopic Probes of the Structures of Ions — None
Competing for Rao Prize? Yes
Competing for Miller Prize? No
Comment: *Wilma will be so proud.*