

巻頭言

“PREFACE”

品川技報No.50によせて（雑感）

On the Occasion of Publishing Shinagawa Technical Report No.50
(Miscellaneous Thoughts)

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50号という区切りに当たりふと感じたことですが、当社創業132年、これを1億倍すると、132億年です。これは宇宙誕生135億年とアバウトイコールです。当社創業以来の年数を宇宙誕生以来の年数で割ると $\approx 1/1$ 億、即ち最近良く耳にするナノの世界です。数号前から当社創業130年超のことはこの技報にも何度か紹介されていますがこのような比率を思い浮かべるのは私一人だけです。

私が入社した頃の大きさ（長さ）の最小単位はnmではなく μ m単位であり、これ以下はサブミクロンと総称され、極超微小の世界の特異な領域でした。ところが最近ではこの極超微小の世界が技術によりコントロールできるようであり、改めて技術の進歩に驚かされます。

近年当社では、熱、流体、力等の流れをモデル化し、シュミレートした結果を元にコンピューター処理し、開発、改善の方向付けに役立てています。

With the publication of Shinagawa Technical Report No.50 and the 132nd anniversary of our company, it occurs to me that 132 years multiplied by 100 million equals 13.2 billion years. The universe was born about 13.5 billion years ago. 13.2 billion years is about the same as this figure. The number of years which has passed since our company was founded divided by the number of years which has passed since the birth of the universe almost equals a fraction of 100 millionth. This relates to the world of nano which we often hear recently. The fact that our company was founded more than 130 years ago was mentioned in the past several issues, but I may be the only one who has thought about this kind of ratio.

When I enter the company, the minimum unit of the size or the length was a micron, not a nano meter. The unit below it was collectively called submicron. It was an extremely minute world and a very special area. However, this extremely minute world seems to be controlled by technology recently. I am startled anew by advances in technology.

Recently our company is processing the data resulting from modeling and simulating the flows

n m技術と当社技術を比較するものではありませんが、両技術の共通項は“可視化”であると思います。如何に物の本質を見ることが重要か、諺に曰く、“百聞は一見に如かず”そのものです。

因みに最近の報告で約130億年前の揺らぎ現象が観測されたとか。（このことはn mを視るより困難か）。この事実によりまた新しい考えが報告され宇宙誕生の謎解明に向かうことでしょう。何よりも視ることが物事の発展、改善に大きく影響した例は過去より枚挙に暇がありません。本号に掲載されている論文も然りです。

私は幕末の某土佐郷土に興味があり、彼の事を書いた本を殊更好んで読んだ時期がありました。本によれば、あの黒船が来たとき、夜を駆け、山を越え黒船を視に行ったそうです。巨大な船を視、大砲の吠える轟音に驚き、日本と外国の力のあまりに大きな差を認識し、その認識がその後の維新に向かう世の流れに大きな影響を与えたそうです。要するに、物事を見ると人の脳は多大な刺激を受けるものようです。視る為、見えるようにするためには“行動する”ことが必要です。彼の郷土はその行動が素早く、又非常に大胆であった。当時の移動手段を考えると“すさまじい”とさえ感じました。

本技報は50号を数えますがその論文の全ては時代時代を詳細に視、又視るために多くの労力を惜しまず、激しく行動された結果として寄稿され、今まで我々の技術指針となってきたと素直に感じます。現在も又各所で展開している革新の技術が次号以降華々しく品川技報を飾り耐火物の指針となることを期待したい。

営業を担当する一人として技術陣の努力に感謝し、本技報を技術指針として耐火物のユーザーの皆様方に幅広く品川の技術をご紹介すべく、激しく行動したく考えながら、筆を置かせて頂きます。

of heat, fluid, force, etc. to give direction to our technological development and improvement. I don't compare nanotechnology with our technology, but I think the common factor of both technologies is “visualization”. How important it is to see the essence of things. As the proverb goes, “Seeing is believing.”

In the meantime, according to a recent report, fluctuations caused about 13 billion years ago were observed. (Which may be more difficult to see than a nanometer.) This fact would be followed by various reports on new ideas, leading to solving the mystery of the birth of the universe. There are so many cases in which seeing influenced significantly the development or improvement of things. That's certainly the case with the papers in this Technical Report.

I am interested in a certain samurai of the Tosa Domain who lived at the end of the Tokugawa Shogunate. There was a time I read a lot of books written about him. According to the books, when the Black Ships of Commodore Perry arrived, he ran at night and went over mountains to see them. It is said that he recognized a huge difference in power between Japan and foreign countries when he saw those gigantic ships and was very surprised at the thunder of the cannon-fire. This recognition greatly affected the trend of the world toward the Meiji Restoration in 1868. After all, it seems that to see things gives a great stimulus to a human brain. It is necessary to “take action” to see or to be able to see things. That samurai was quick to take very bold action. Considering the transportation method at that time, his speed appears “tremendous”.

This technical report is the 50th issue. My honest impression is that all of the past reports were contributed as a result of thorough observation of the times, great efforts in observing things and bold action, and consequently, became our technical guideline. I hope that innovative technology developed everywhere at present will run across the entire Shinagawa Technical Reports from the next and will become the guideline of refractories.

Appreciating the efforts made by our R&D group as one of the members in charge of sales, I am willing to take vigorous action to widely introduce Shinagawa's technology to all our users of refractories, using this Technical Report as a technical guideline. With this determination, I would like to put down my pen.