

Modified Relativistic Dynamics in Regions of Extremely Small Accelerations: Velocity and Acceleration Dependence of Time

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Parametric study of radiation force on nonlinear microspheres (e.g. polystyrene and fused quartz) was considered using a 1064 nm Nd:YAG diode-pumped laser. Other experimental parameters (e.g. back focal power, numerical aperture, size of the microsphere) were also included in the optimization process. Near the beam focus, optical trapping force behaves linearly with microsphere displacement where trapping stiffness is the constant of proportionality.

1. SECTION

1.1. Subsection

Newton's statement of the law of universal gravitation in the form

$$F = \frac{GMm}{r^2} \quad (1)$$

has been verified and, along with the second law,

$$\vec{F} = m \frac{d^2\vec{r}}{dt^2} \equiv m\vec{a} \quad (2)$$

Utilized with great success since its formulation in the 16th century. However, observations in the galactic region exhibit deviations from the predictions of Newton's laws [1]. To explain these, M. Milgrom [2] proposed to generalize eqn (2) with

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3. METADATA

Newton's law of universal gravitation in the form

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4. RESULTS AND DISCUSSION

Statement of the law of universal gravitation

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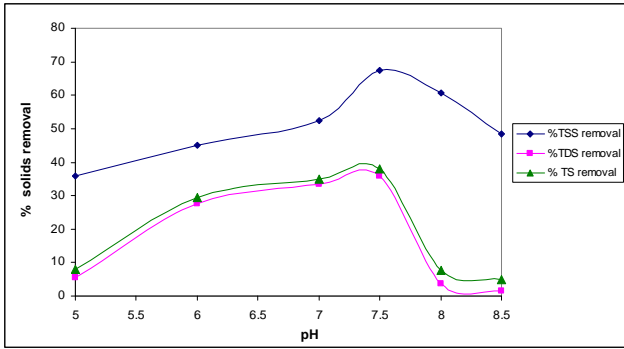


Fig. 1: Effect of pH on % removal of solids using PAC (800 ppm) and excelfloc (1ppm).

TABLE I: Characteristics of Untreated Wastewater.

Parameter	Unit	Value
pH	-	12.58 – 12.14
Chemical Oxygen Demand	ppm	666.48 – 669.19
Total Suspended Solids	ppm	116 – 132
Total Dissolved Solids	ppm	3241 – 33256
Total Solids	ppm	3436 – 3451
Chromium	ppm	0.5336 – 0.5349



Sample **Figure** and **Table**

[1] J. Gale, C. P. Romero, G. B. Tafoya and J. Conia, *Application of Optical Trapping for Cells Grown on Plates Optimization of PCR and Fidelity of DNA Sequencing of p53 Gene from a Single Cell*, Clinical Chemistry (American Association for Clinical Chemistry, Inc. University of New Mexico, 2003).

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Fig. 1: , Fig. 2: , etc. and **NOT** Figure 1: , Figure 2: ,etc. (do NOT forget the **comma** after the number of the figure.)

For Tables:

Table I: , Table II: , etc. and **NOT** Table 1: , Table 2: , etc.

Take Note (tables and figures):

- The **comma** is in **Times New Roman**.
- If the caption for both figures and tables is only one-liner, **center** it.
- If the caption for both figures and tables is two-liner or more, **justify** it
- **Tables (only):** The caption should be positioned at the top of the table.
- **Figures (only):** The caption should be placed at the bottom after each figure.