# Article information:

Power-Law Correlation for Two-Phase Pressure Drop of Gas/Liquid Flows in Horizontal Pipelines | SPE Projects, Facilities & Construction | OnePetro
<https://onepetro.org/PFC/article-abstract/5/04/176/192340/Power-Law-Correlation-for-Two-Phase-Pressure-Drop?redirectedFrom=fulltext>

# Article summary:

1. A simplified power-law correlation has been proposed to predict pressure drop during gas/liquid flow in horizontal pipes.

2. The equation fits published data well and can correlate various flow patterns including stratified-smooth, stratified-wavy, stratified-atomization, stratified-annular-transition, and annular flow.

3. The proposed formula can be used for flowline-design purposes and flow-assurance predictions in pipelines.

# Article rating:

Appears moderately imbalanced: The article provides some useful information, but is missing several important points or pieces of evidence that would be required to present the discussed topics in a balanced and reliable way. You are encouraged to seek a more balanced perspective on the presented issues by exploring the provided research topics and looking at different information sources.

# Article analysis:

The article titled "Power-Law Correlation for Two-Phase Pressure Drop of Gas/Liquid Flows in Horizontal Pipelines" proposes a new dimensionless equation to predict pressure drop during gas/liquid flow in horizontal pipes. The article claims that the proposed equation fits published data very well and can be used for flowline-design purposes and flow-assurance predictions in pipelines.

One potential bias in the article is that it only considers gas/liquid flows in horizontal pipelines, which may not be representative of all pipeline systems. Additionally, the article does not provide any evidence or discussion of potential risks associated with using the proposed equation for flowline-design purposes and flow-assurance predictions.

The article also lacks a discussion of potential counterarguments or limitations to the proposed equation. For example, it is unclear how well the equation would perform under different operating conditions or with different fluid properties.

Furthermore, the article appears to have a promotional tone, as it emphasizes the usefulness of the proposed equation for pipeline design and assurance without providing a balanced discussion of its potential limitations or drawbacks.

Overall, while the proposed power-law correlation may be useful for predicting pressure drop during gas/liquid flow in horizontal pipelines, readers should approach this article with caution and consider potential biases and limitations before applying the equation to real-world situations.

# Topics for further research:

* Limitations of power-law correlation for gas/liquid flow in pipelines
* Risks associated with using dimensionless equations for flowline-design purposes
* Performance of power-law correlation under different operating conditions
* Effect of fluid properties on power-law correlation accuracy
* Alternative methods for predicting pressure drop in pipelines
* Importance of considering potential biases in pipeline design and assurance research

# Report location:

<https://www.fullpicture.app/item/0d4030d162f9d47c3dbba7faa7f29f15>