

$G_{\text{Voigt}}(\text{GPa})$ 

1000

800

600

400

200

0

200

400

600

800

1000

 $LC_{\min}(\text{GPa})$ 

0.4

0.2

0.0

-0.2

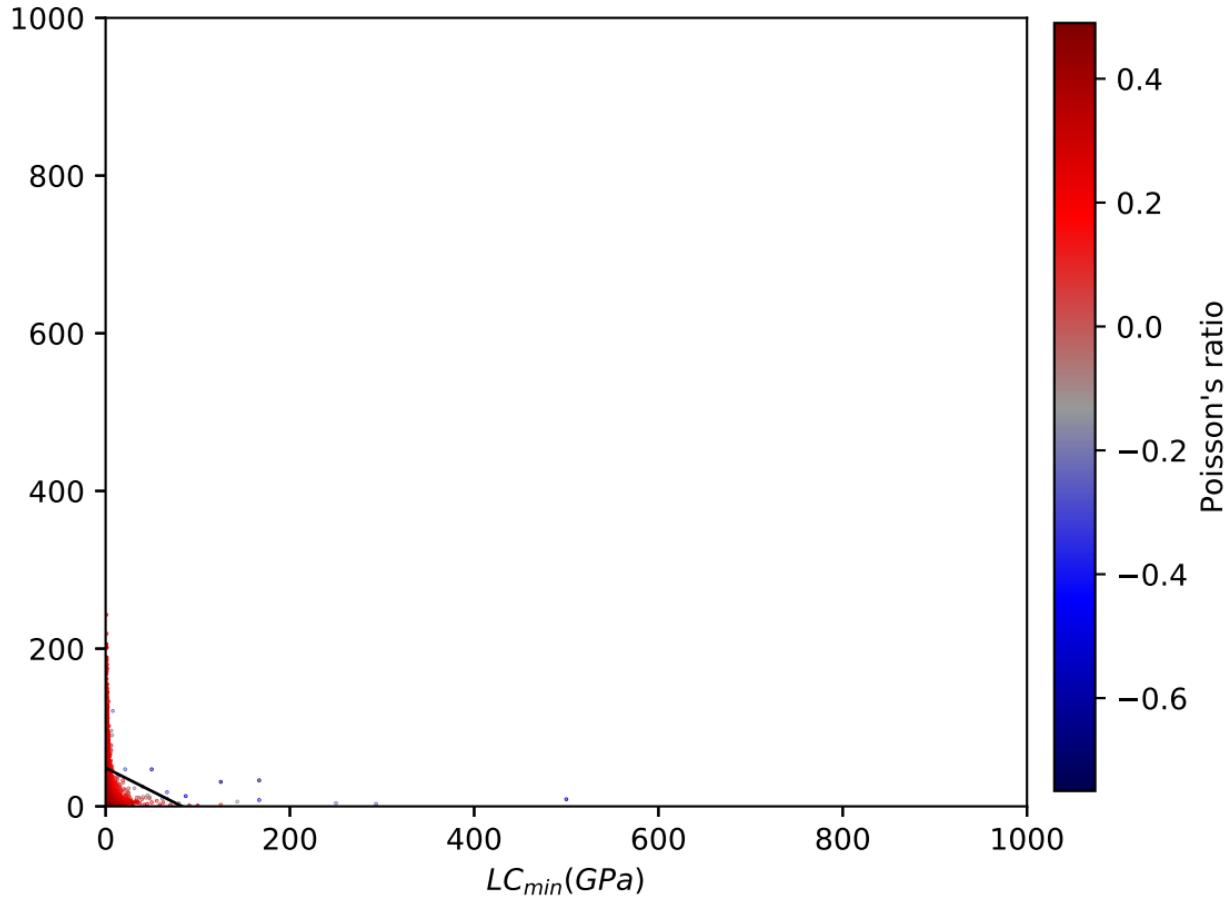
-0.4

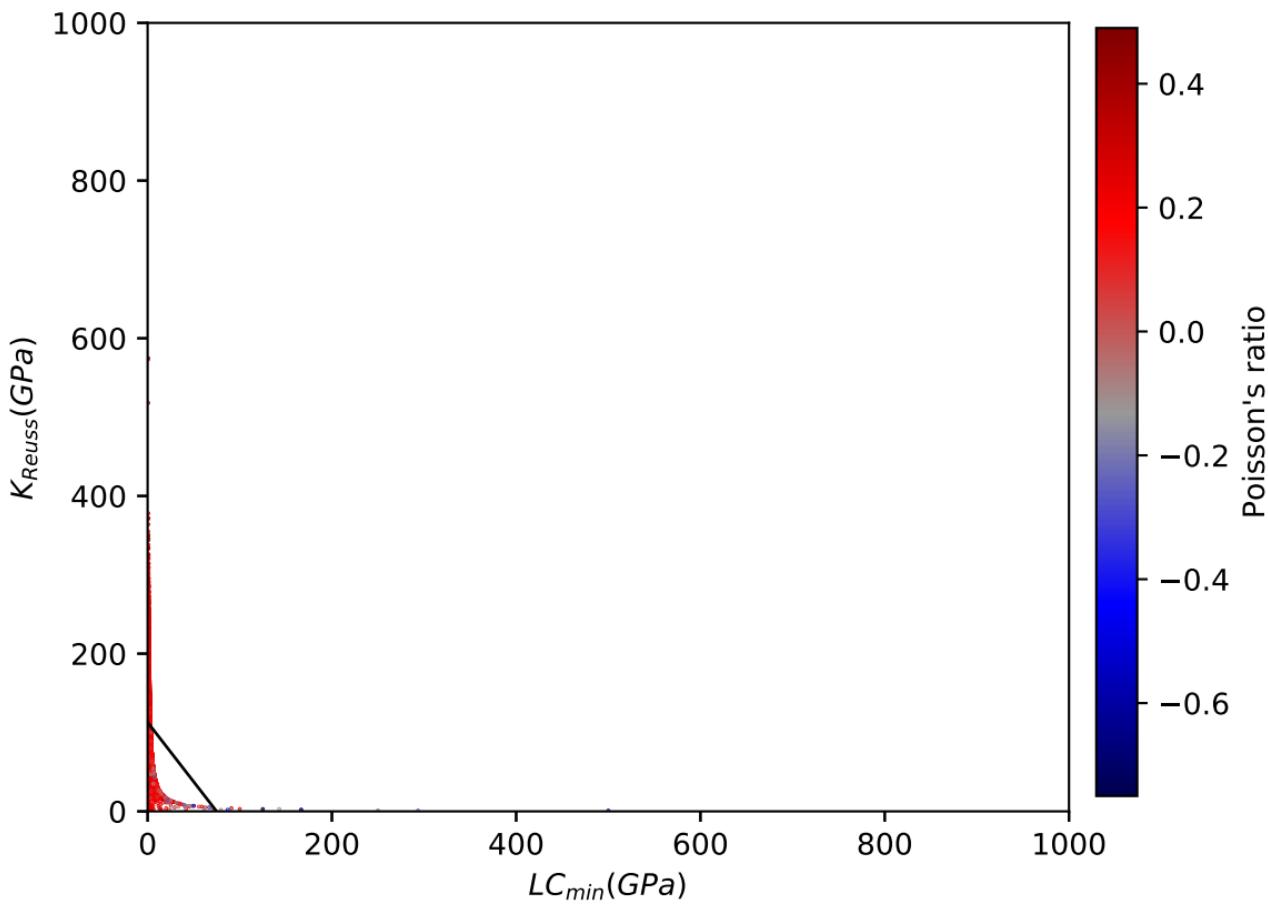
-0.6

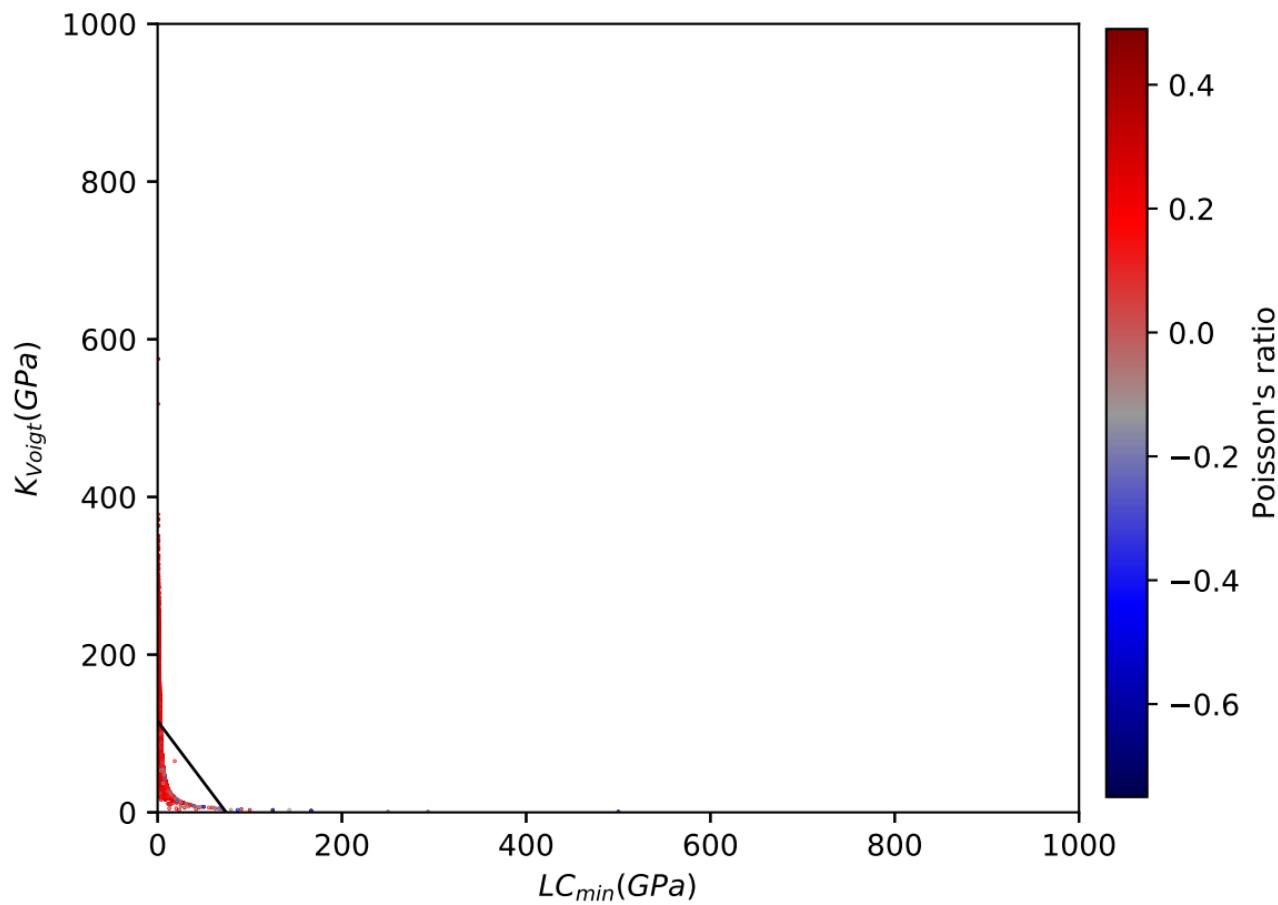
Poisson's ratio



$G_{Voigt\text{--}Reuss\text{--}Hill}(GPa)$







$K_{\text{voigt Reuss Hill}}(\text{GPa})$

1000

800

600

400

200

0

200

400

600

800

1000

$LC_{\min}(\text{GPa})$

Poisson's ratio

0.4

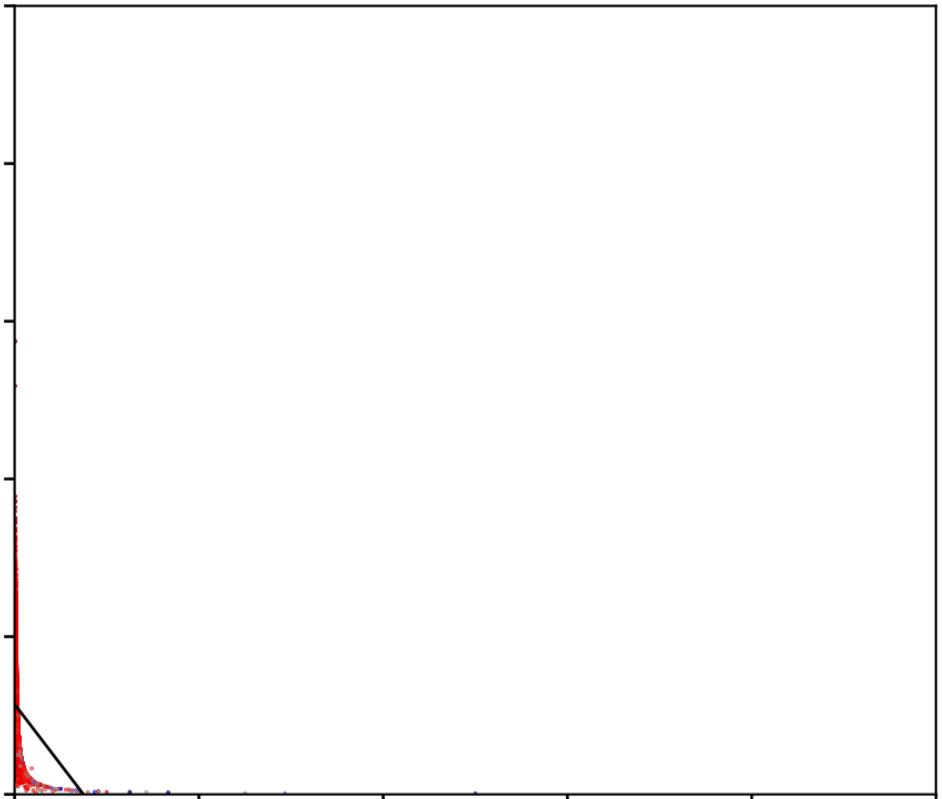
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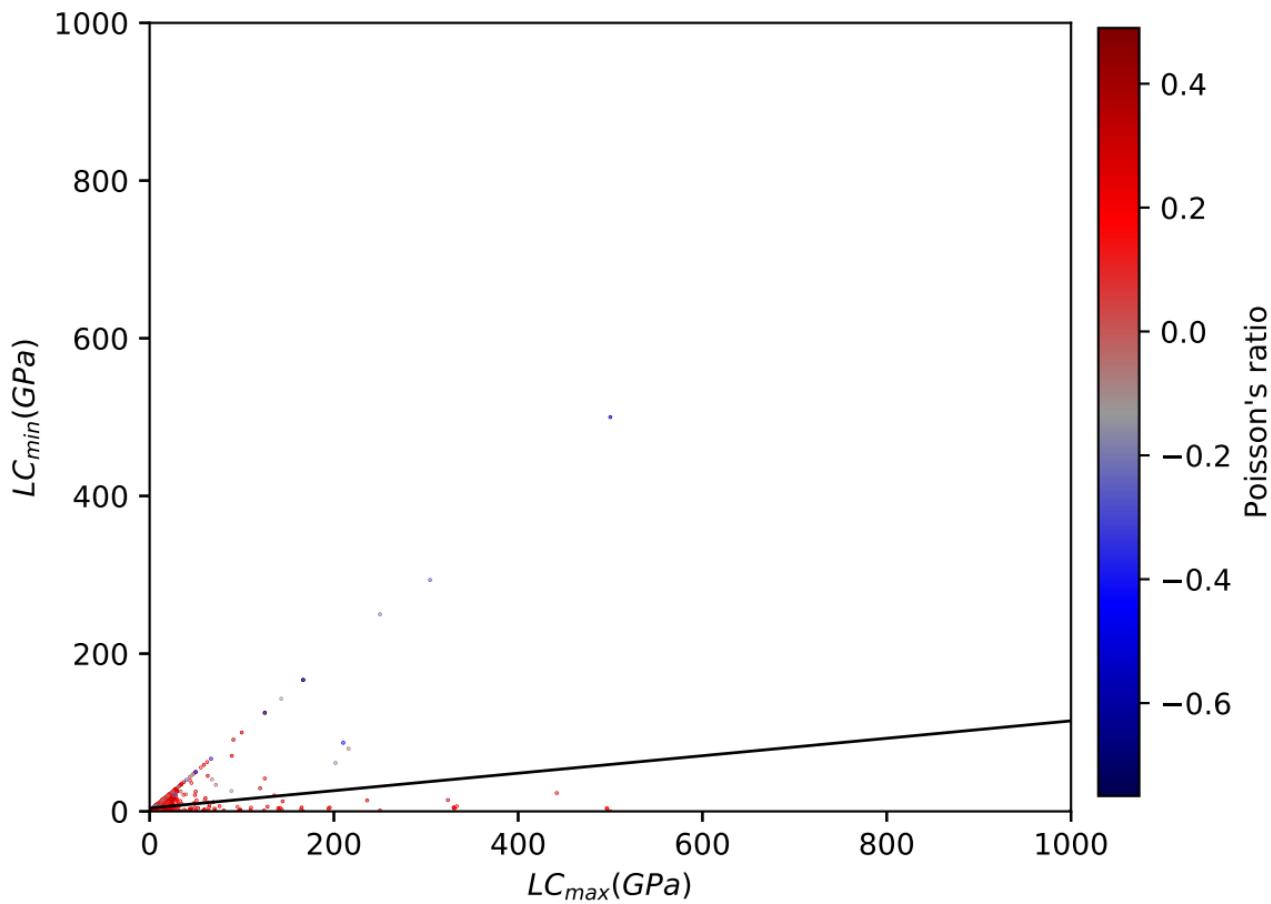
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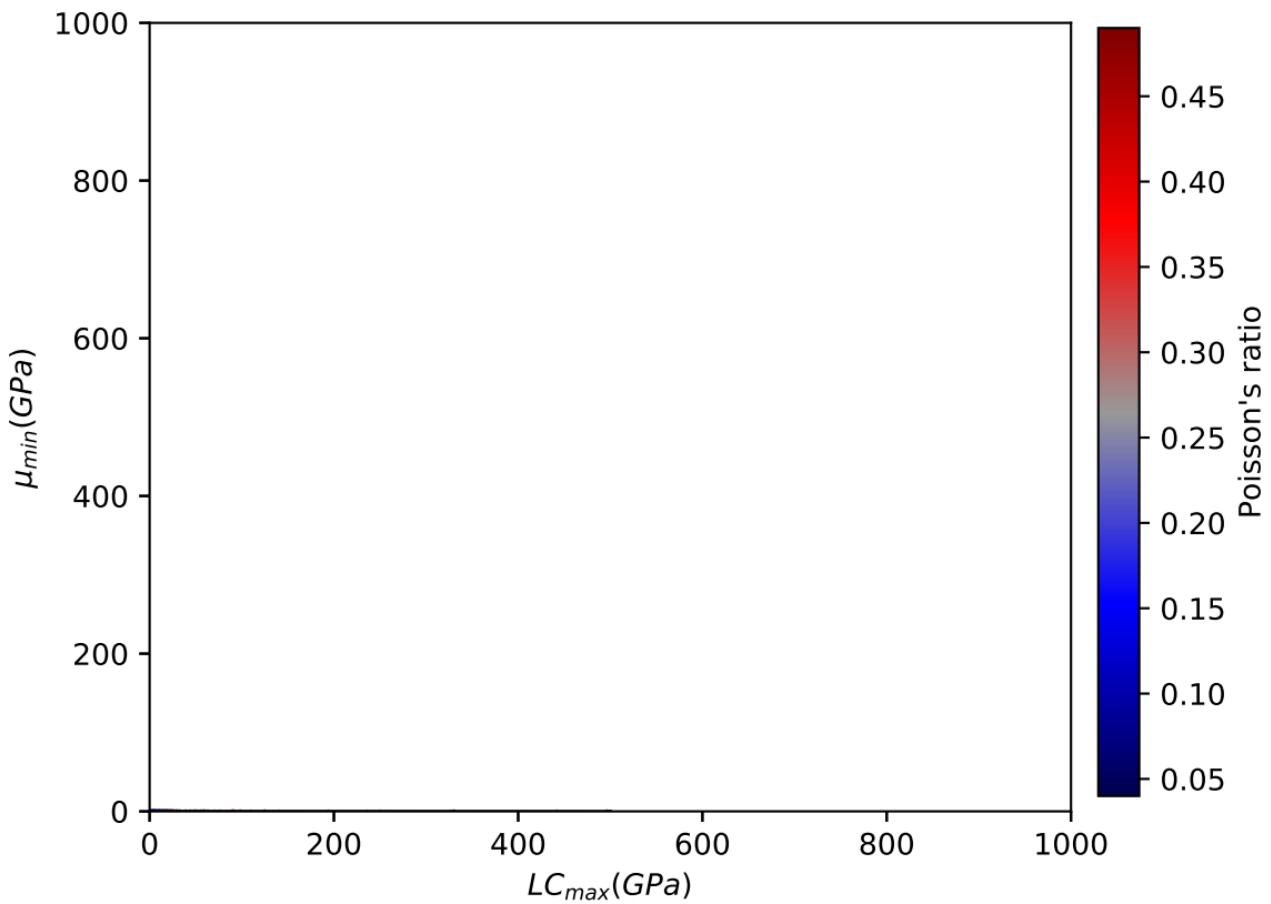
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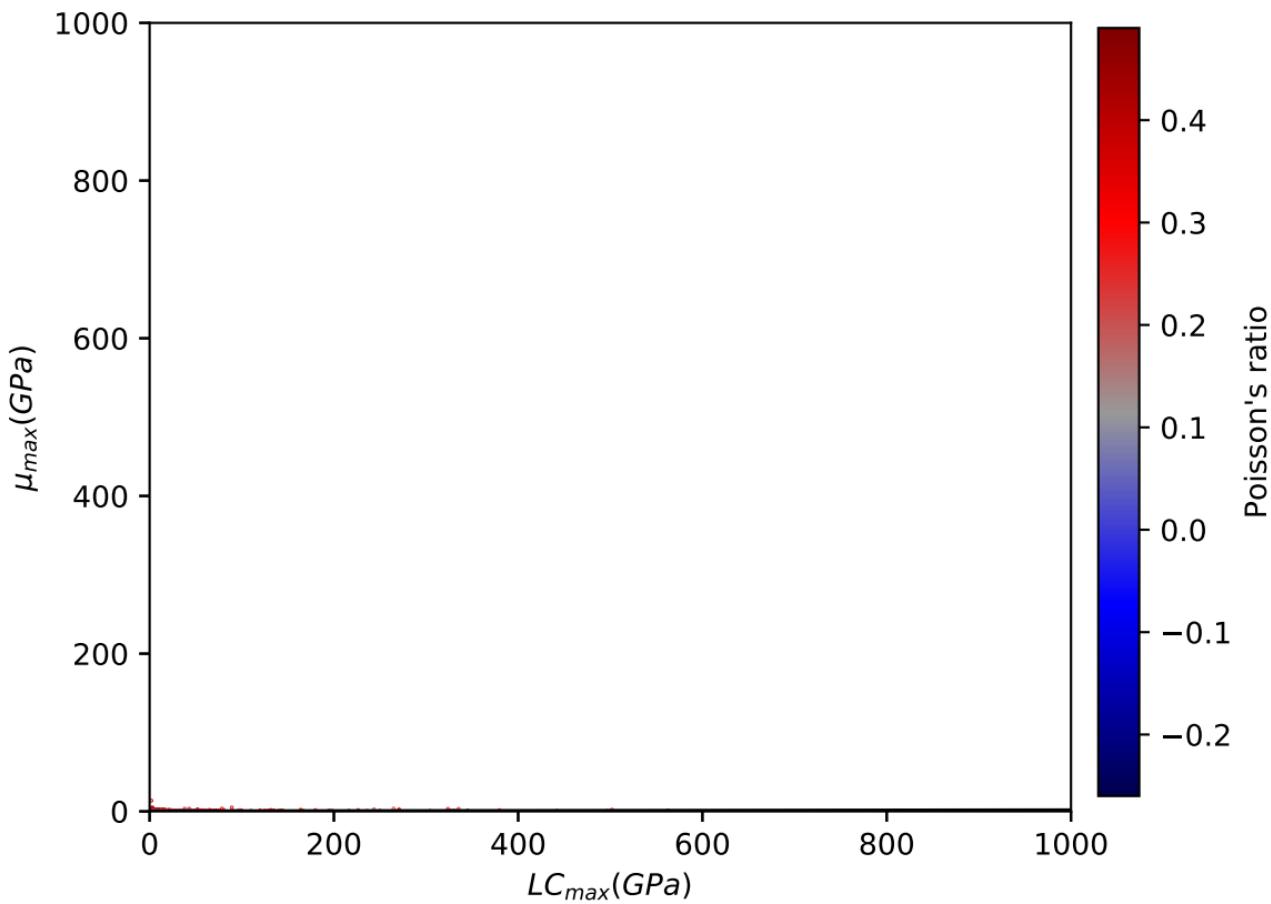
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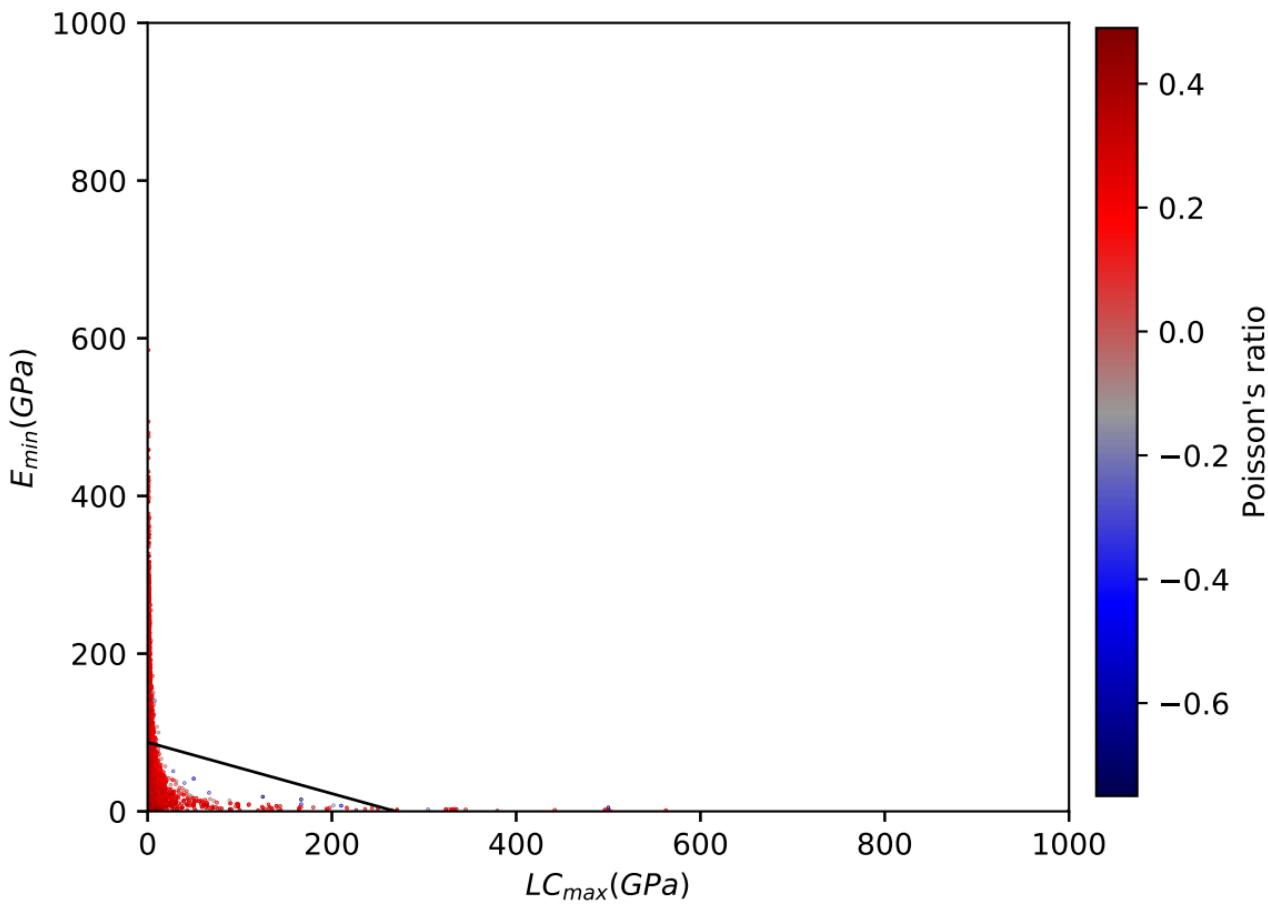
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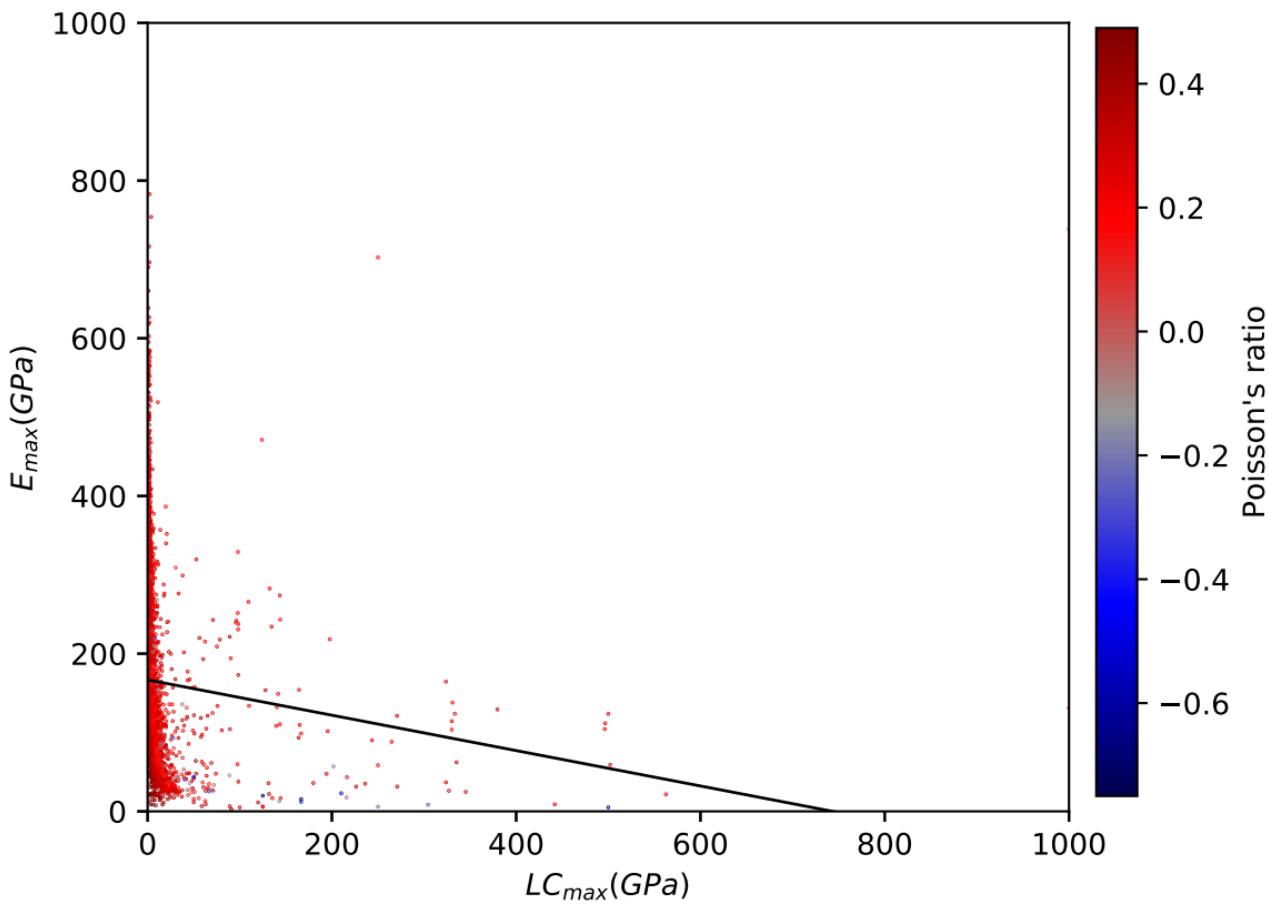


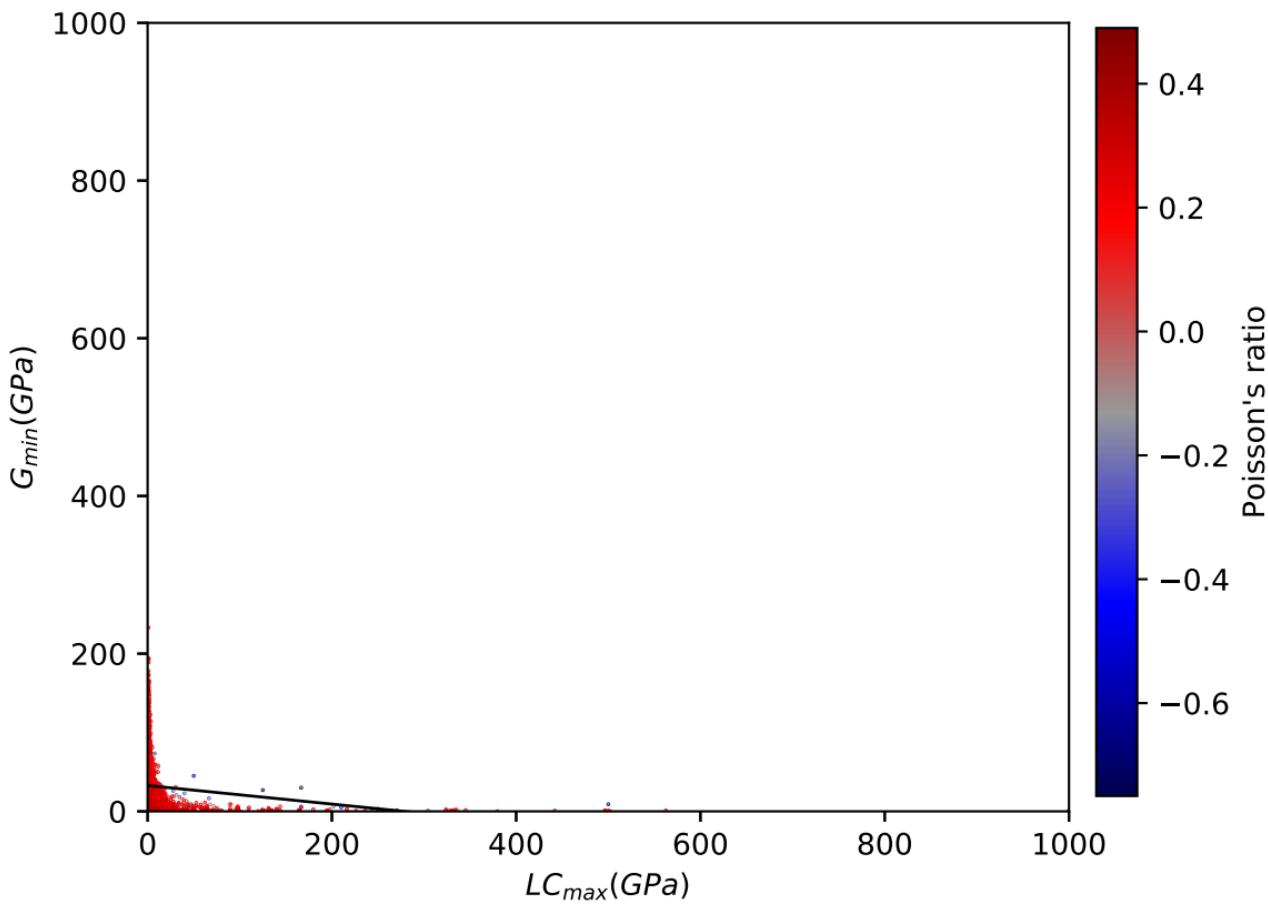


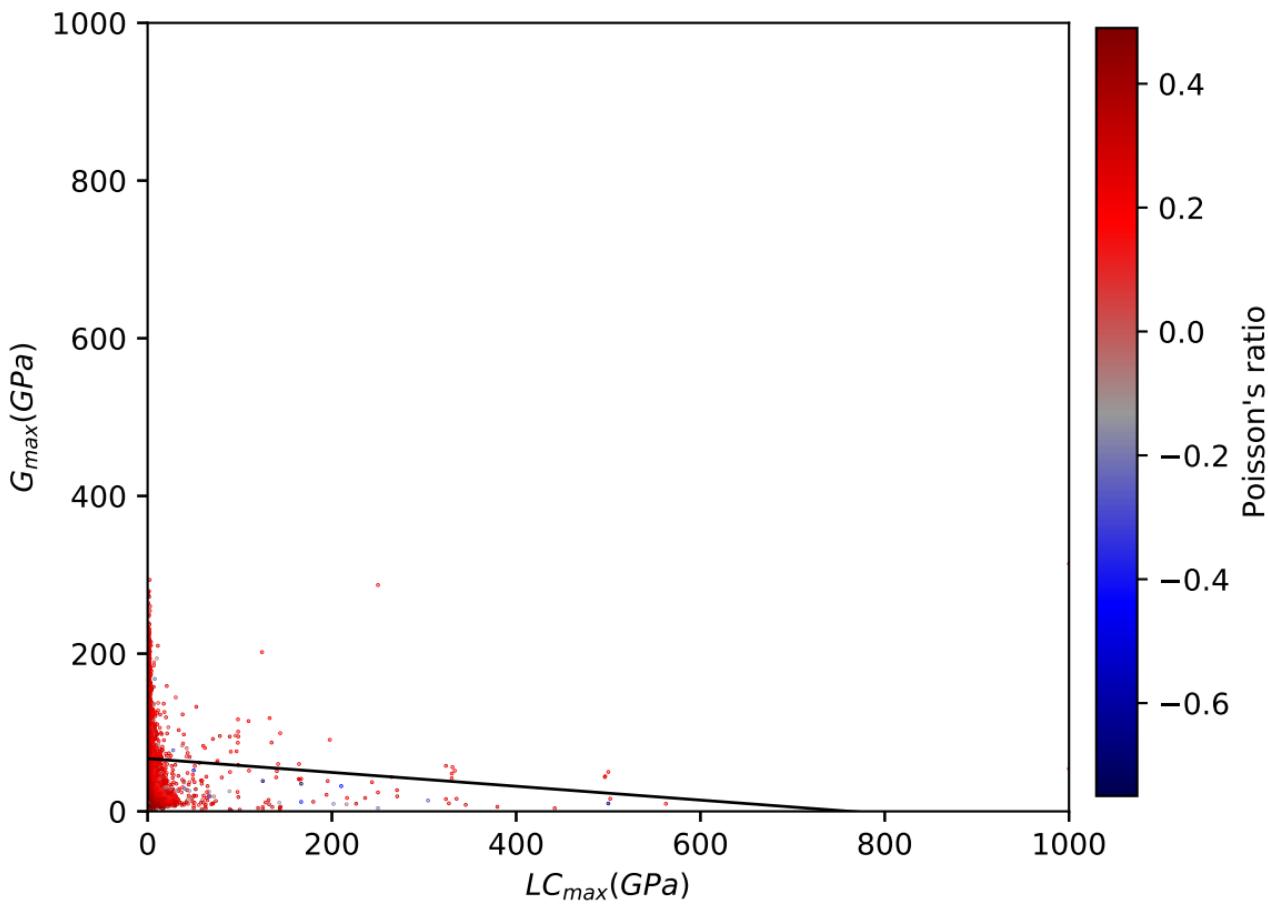


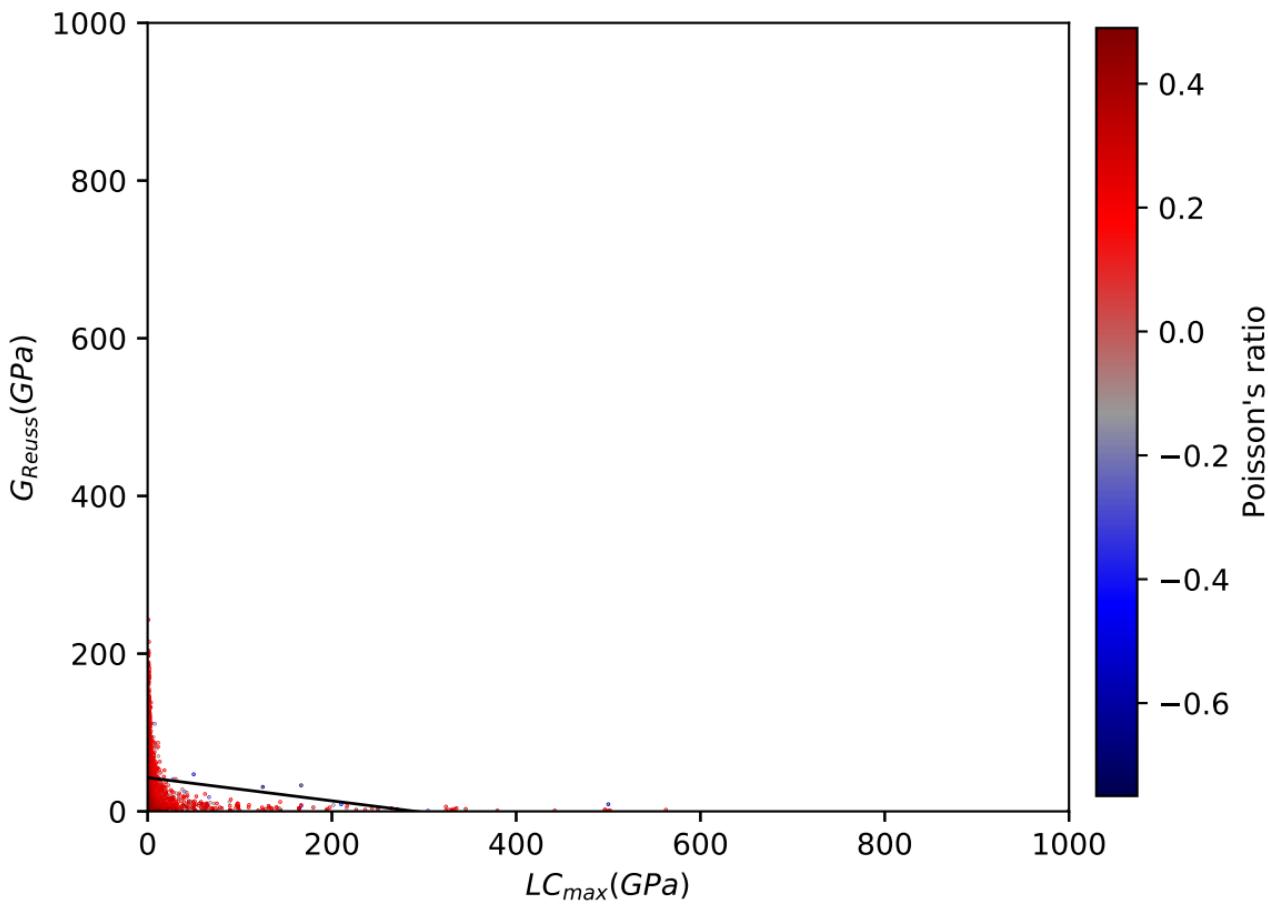


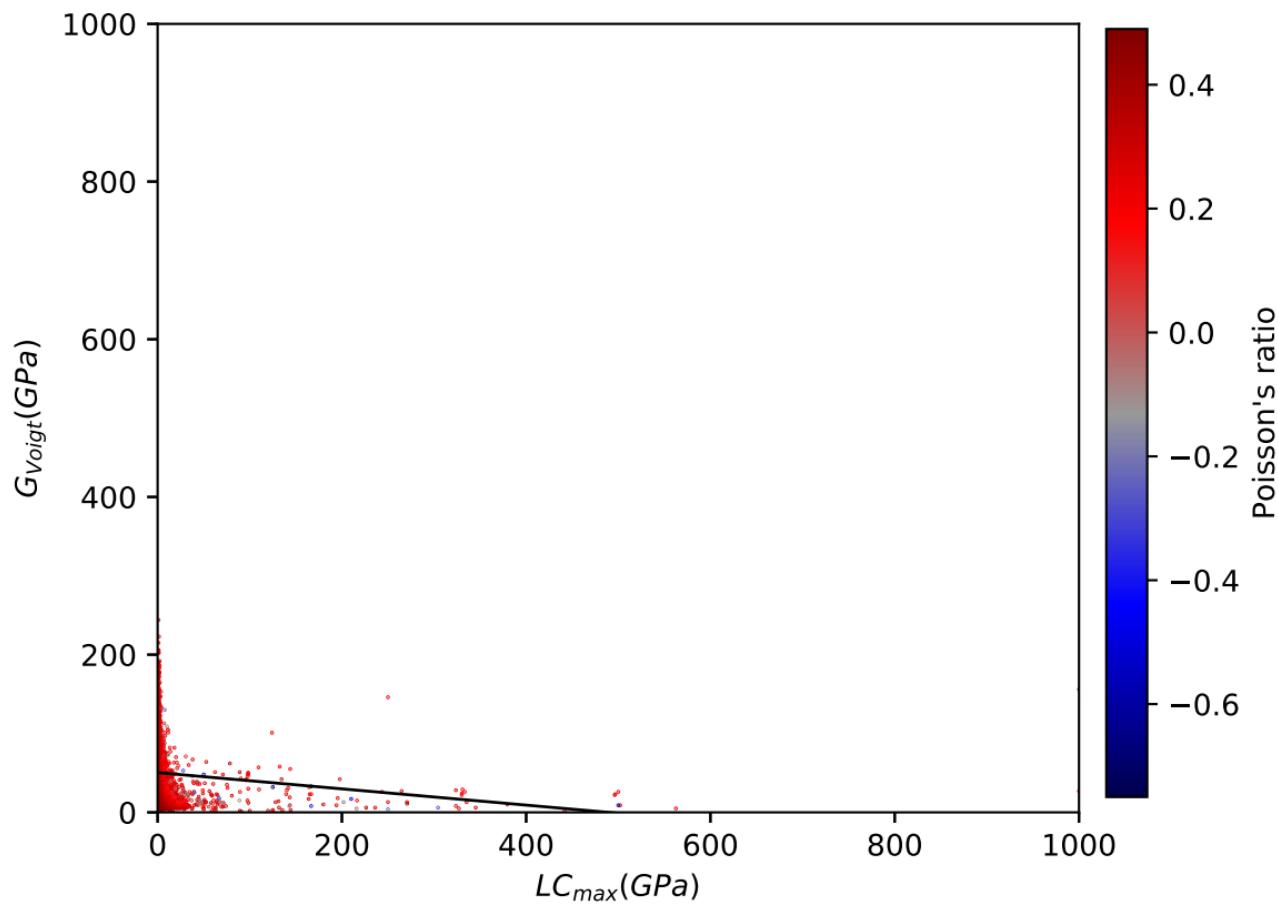




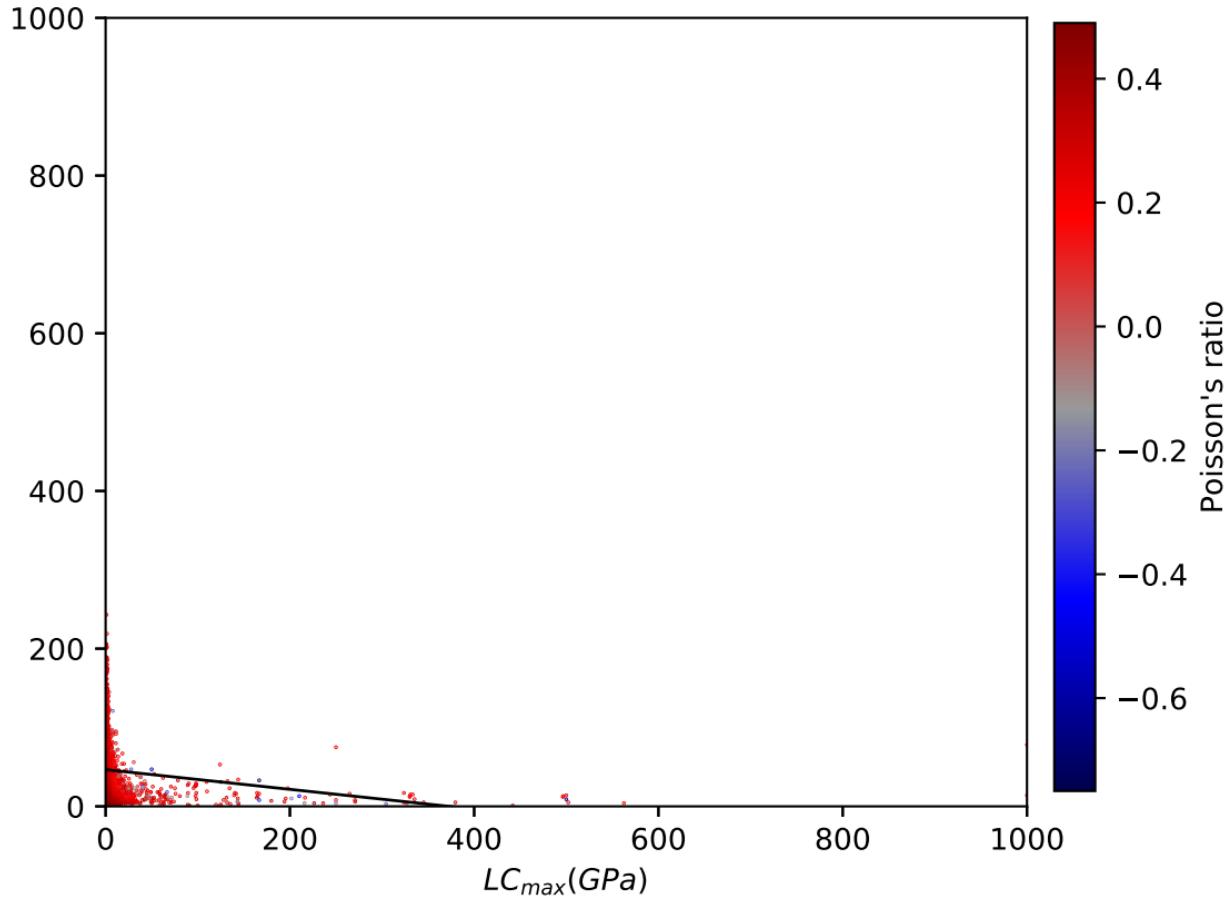


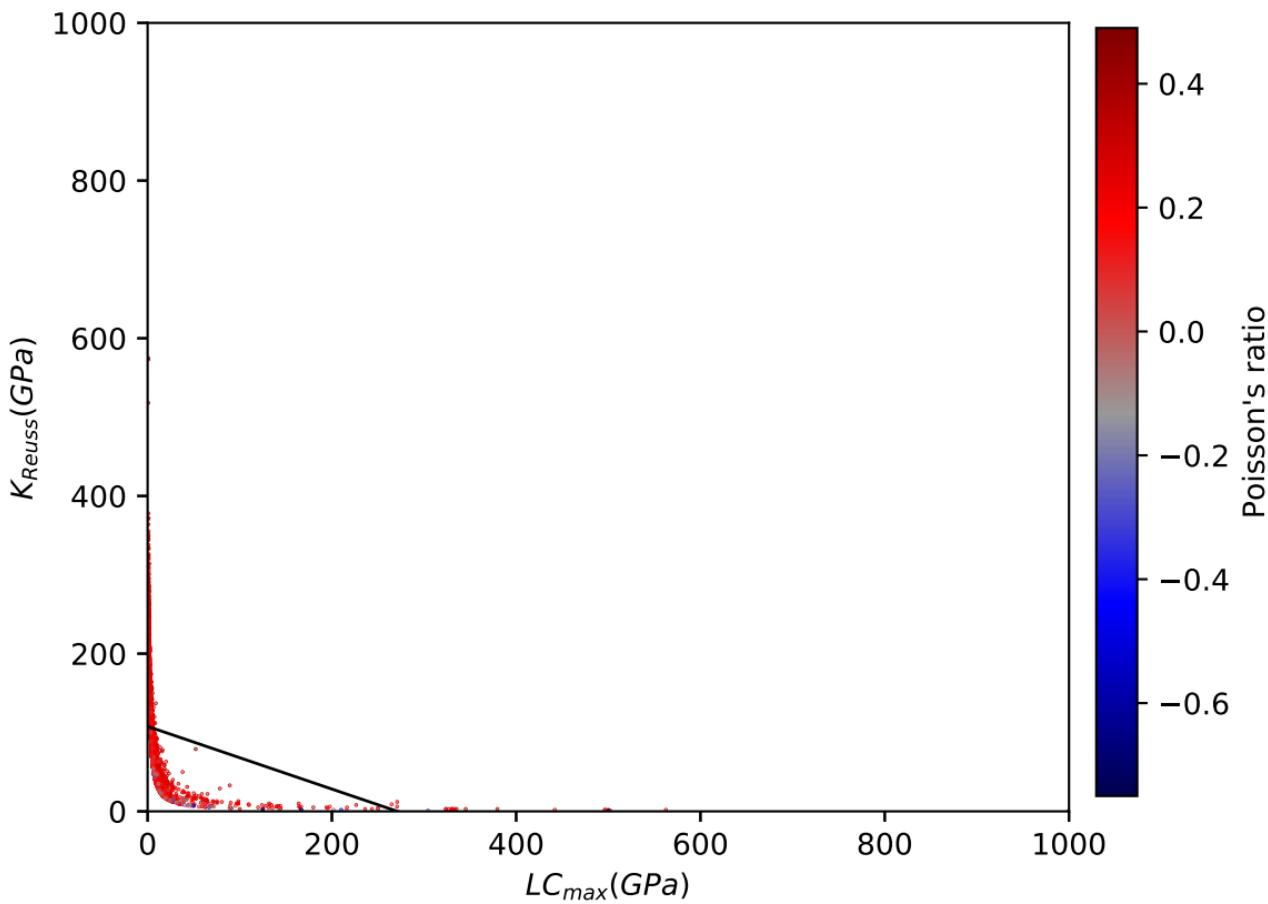


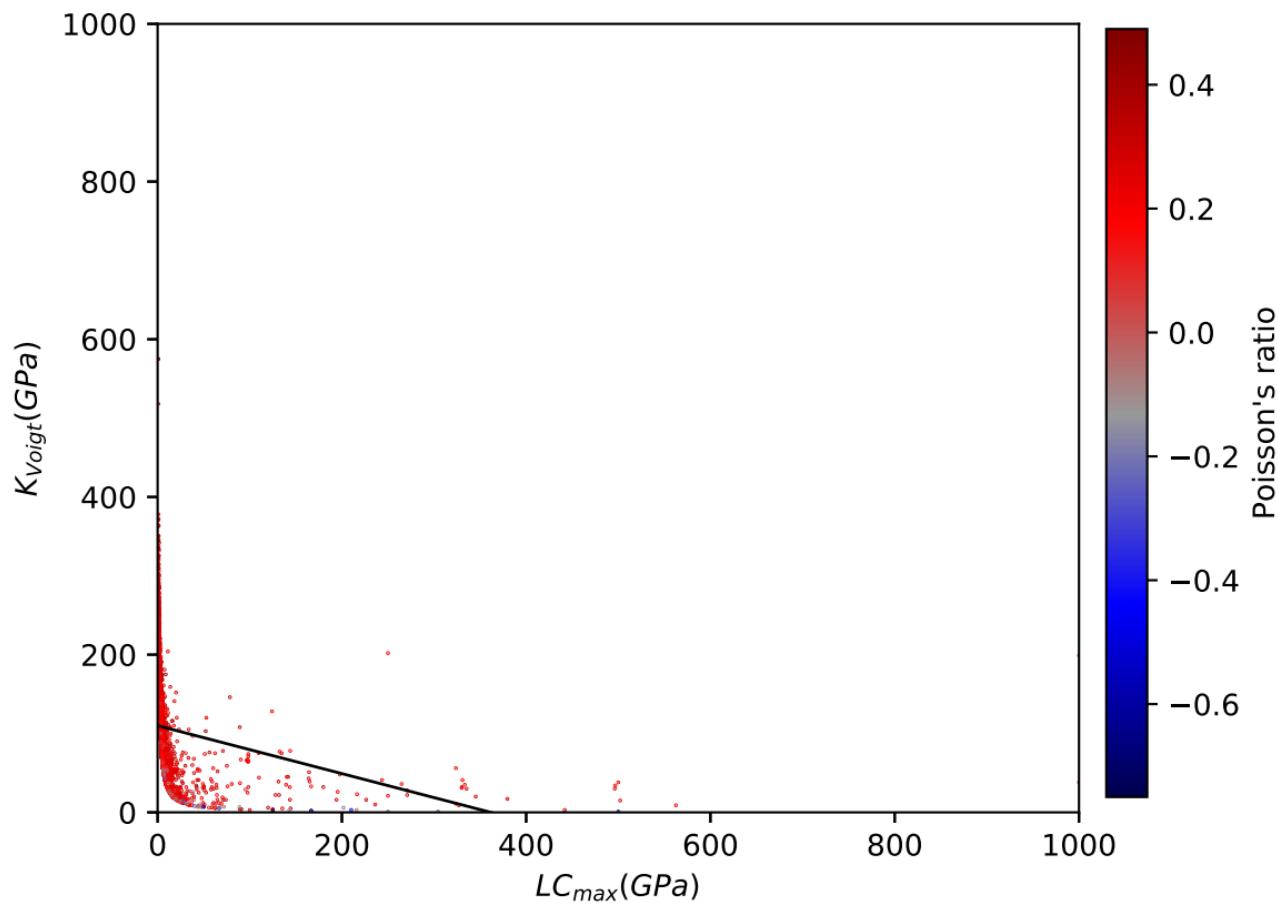


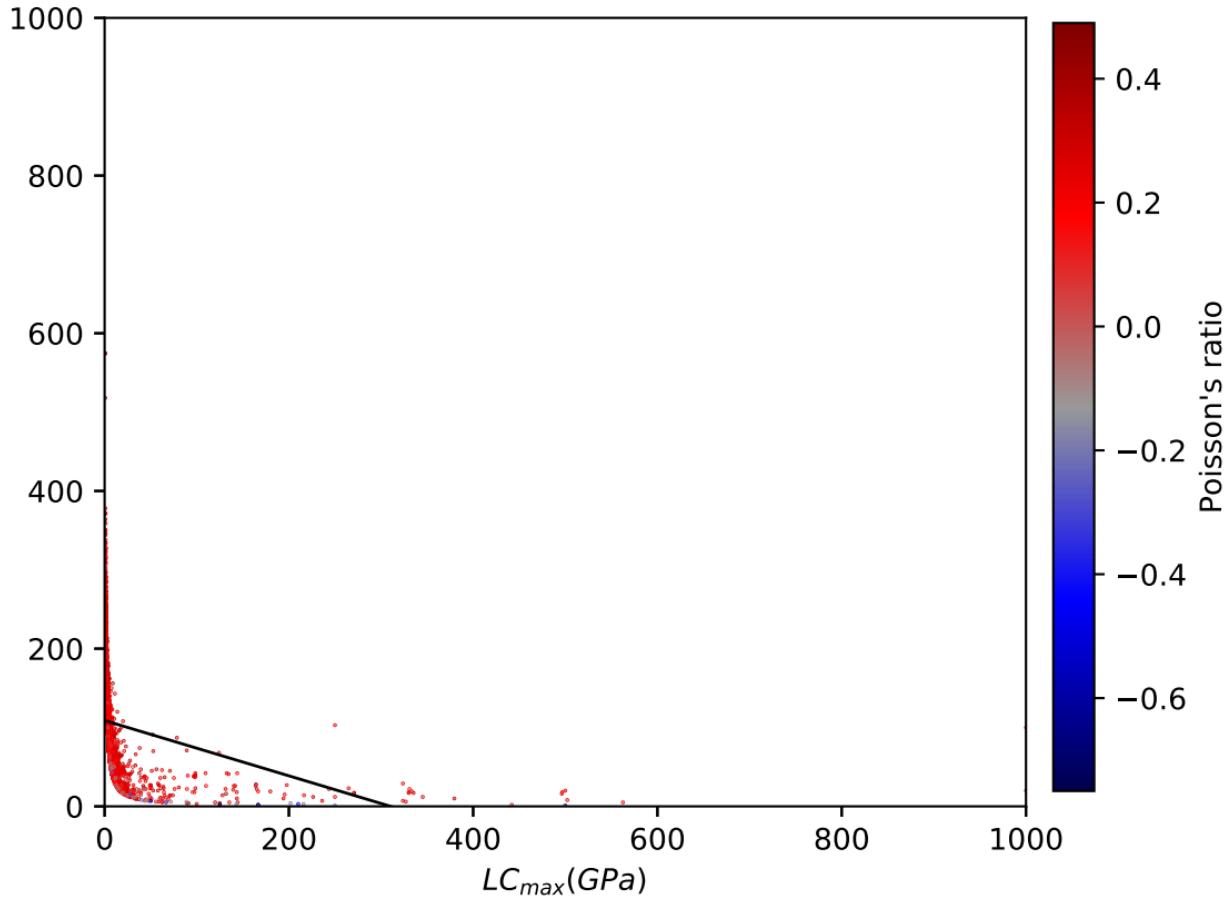


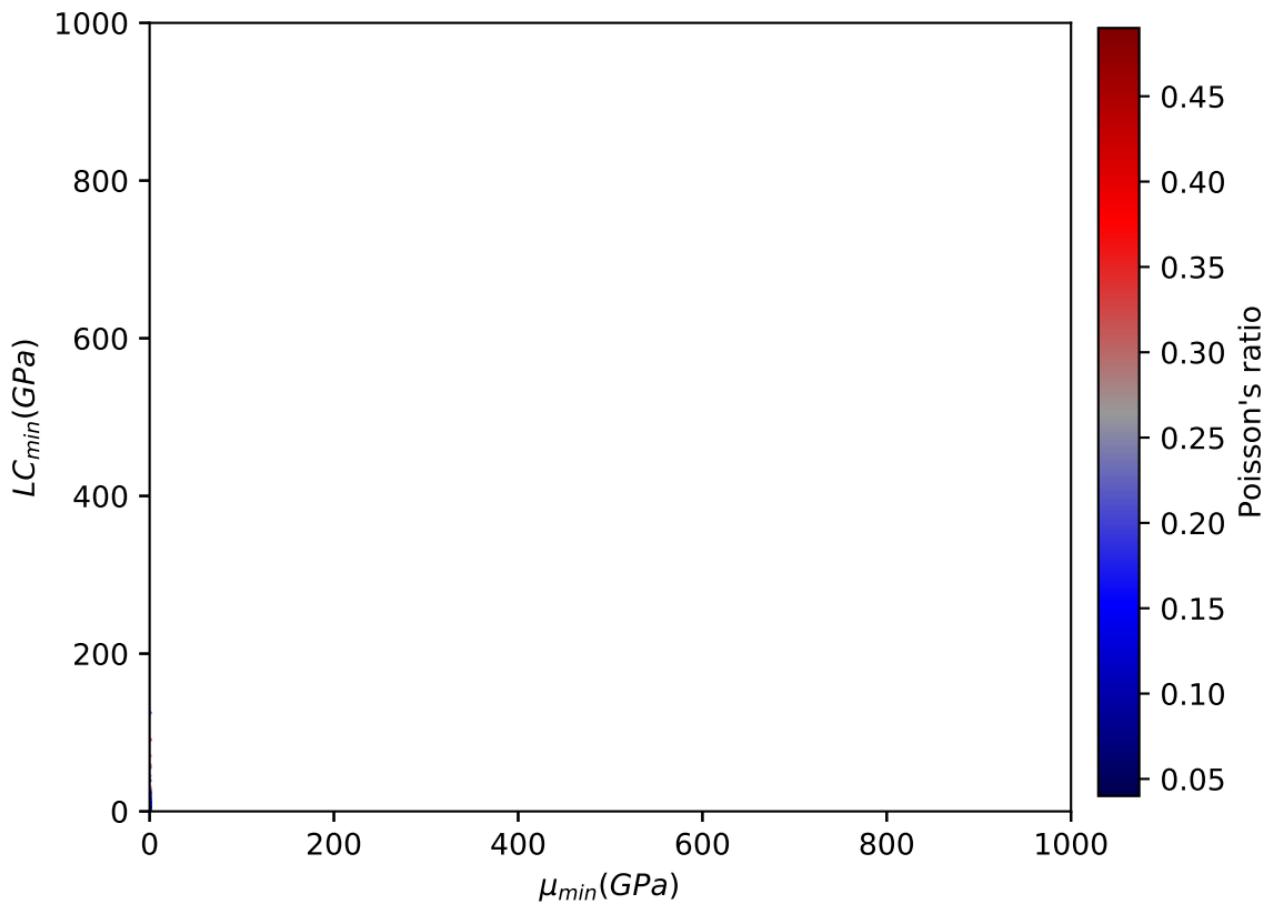
$G_{\text{Voigt Reuss Hill}}(\text{GPa})$

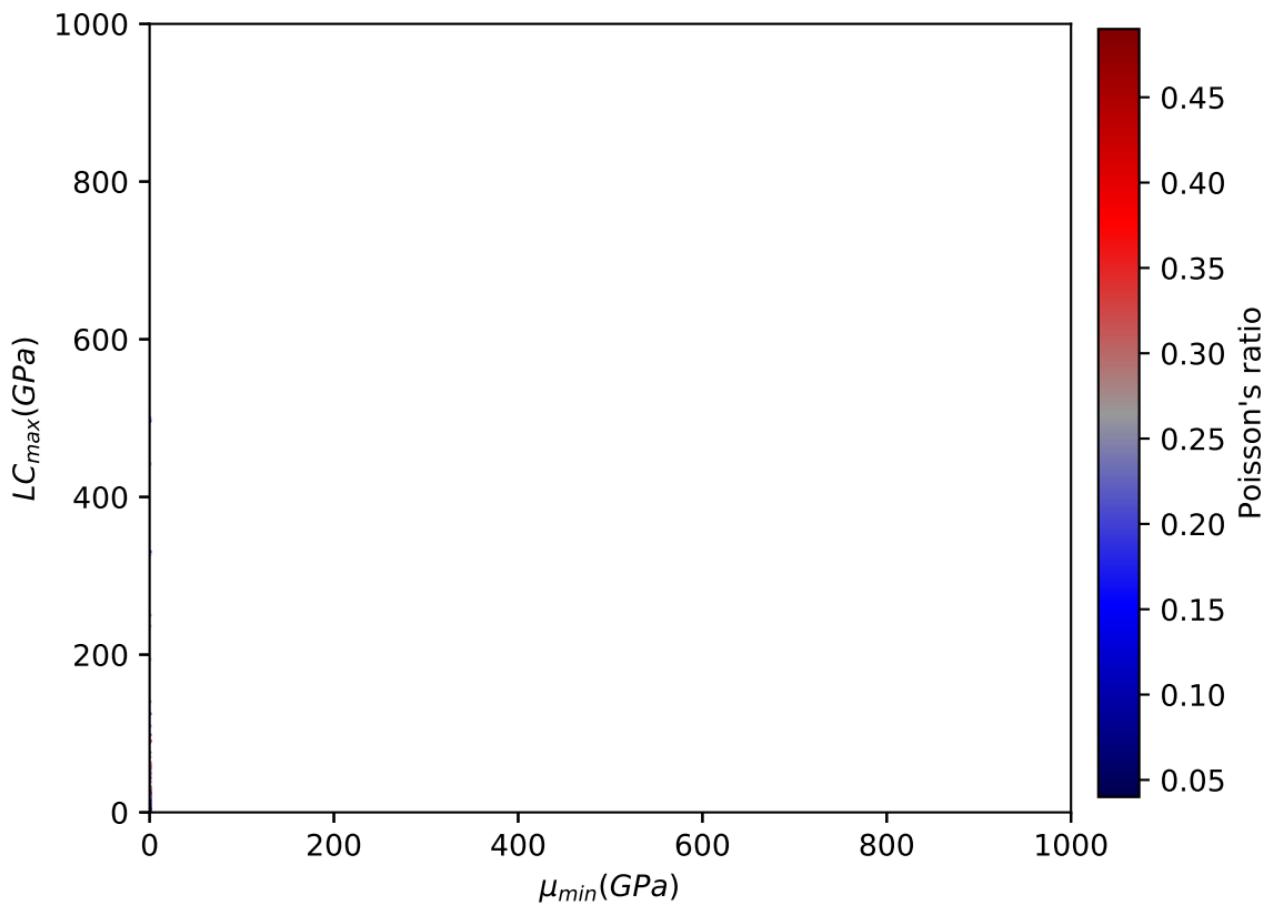


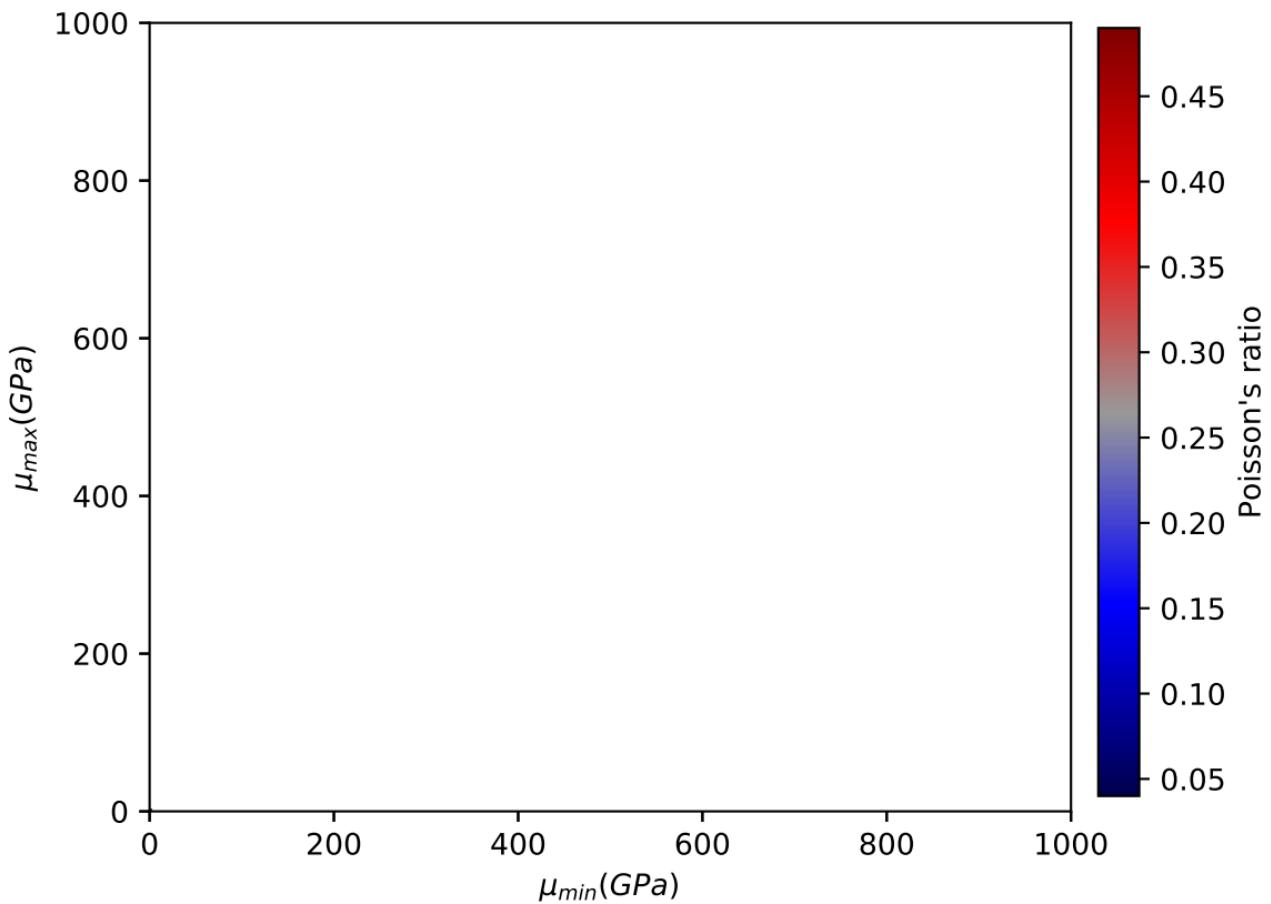


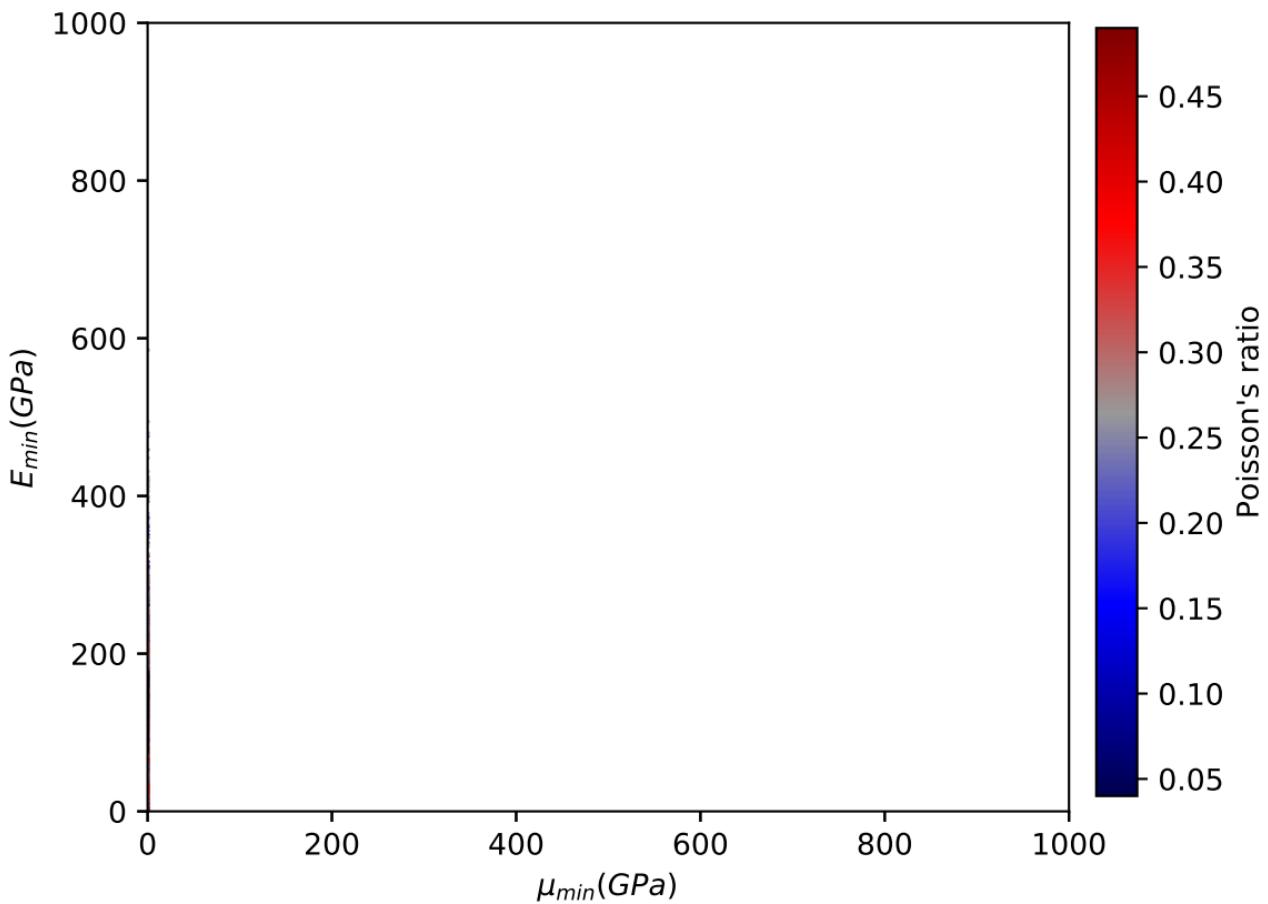


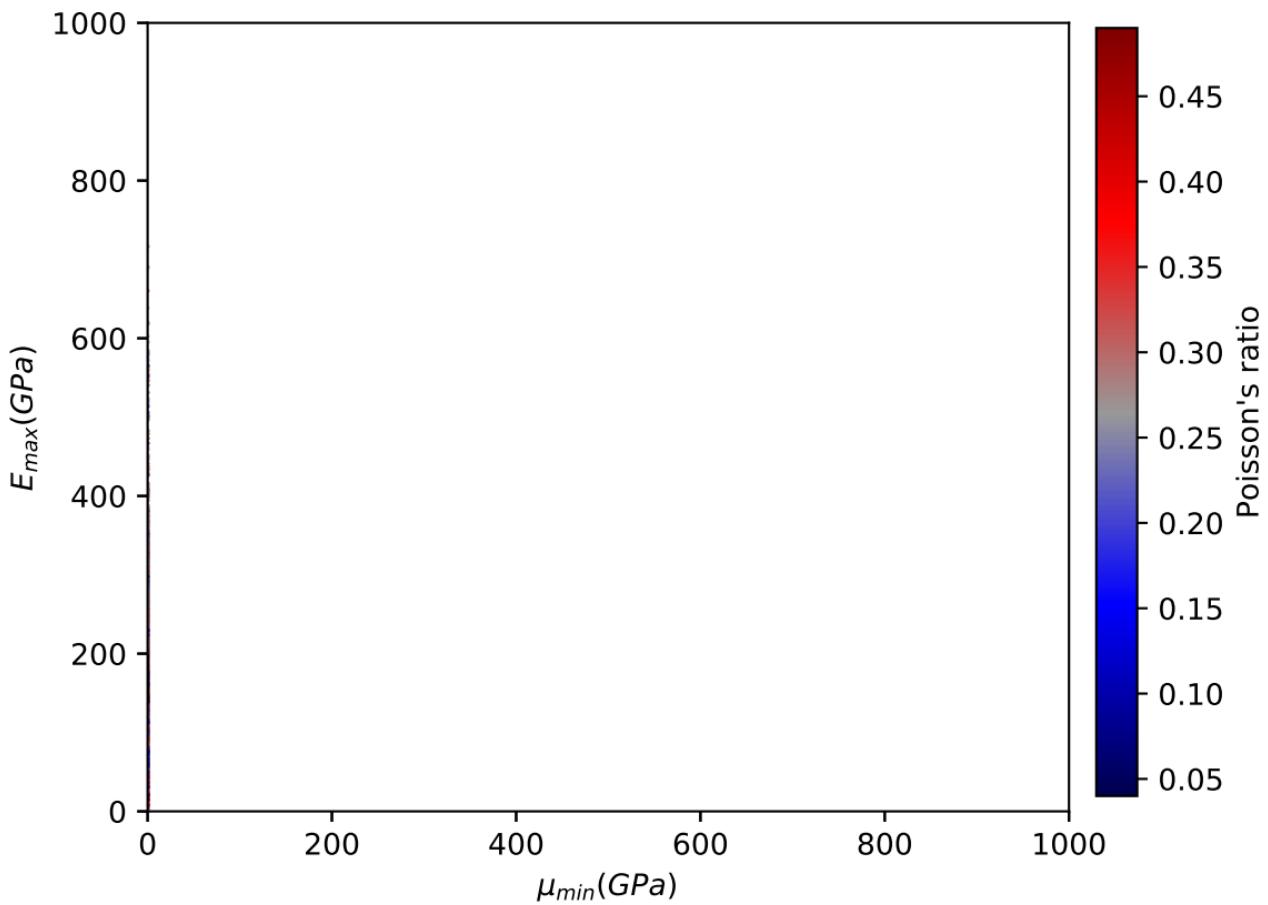
$K_{\text{Voigt Reuss Hill}}(\text{GPa})$ 

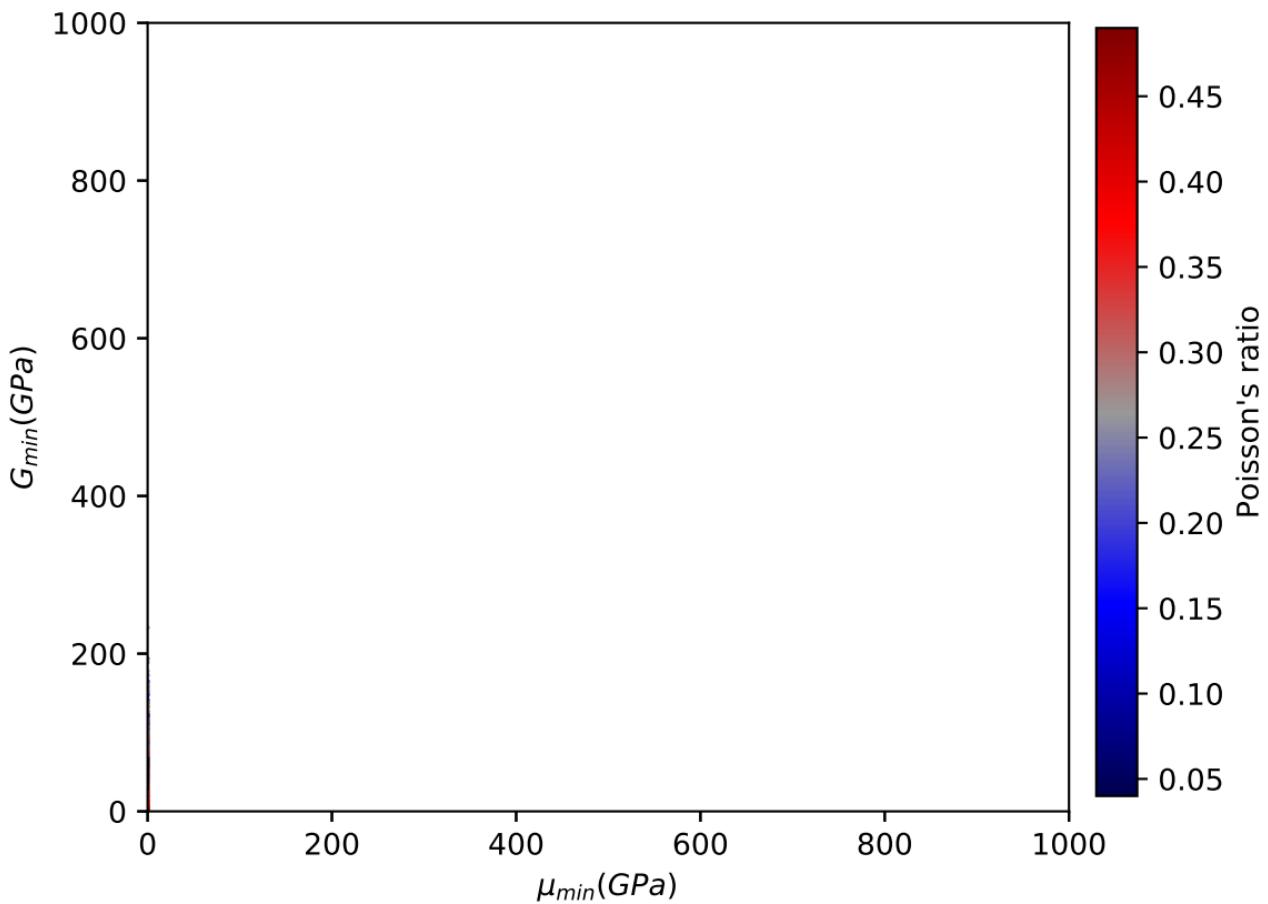


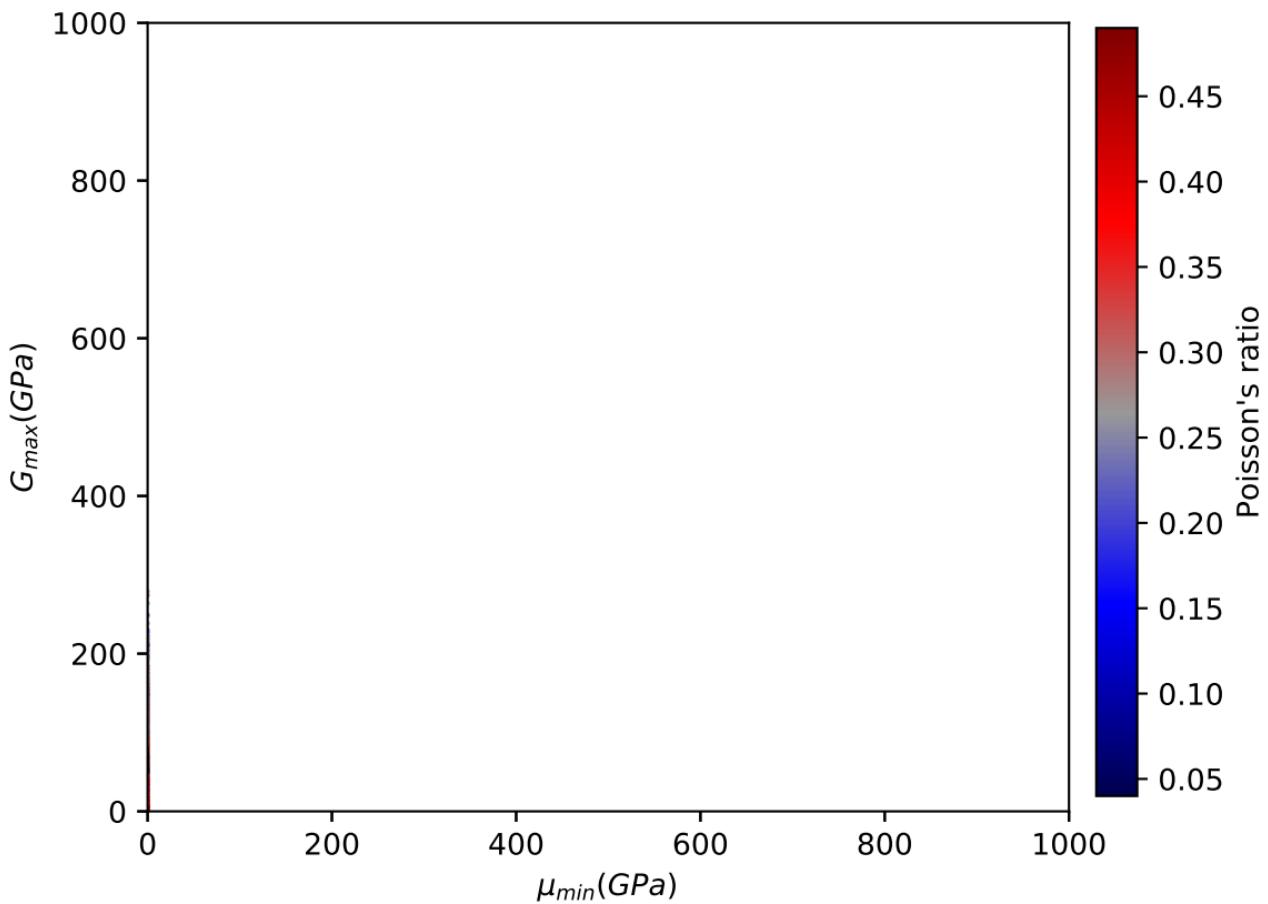


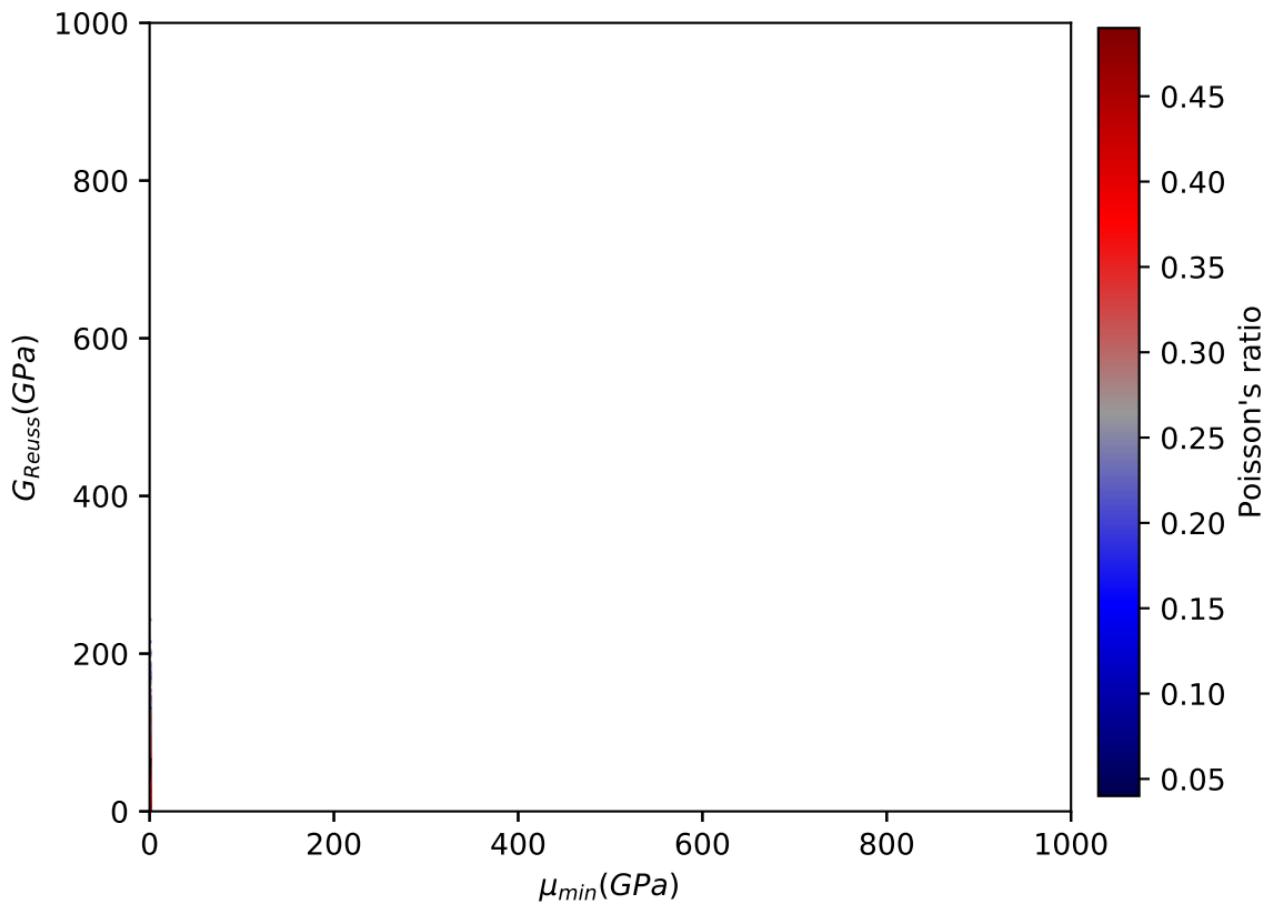












$G_{Vogt}(GPa)$ 

1000

800

600

400

200

0

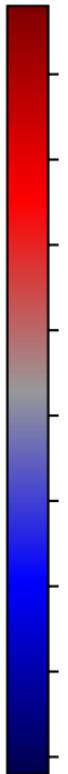
200

400

600

800

1000

 $\mu_{min}(GPa)$ 

Poisson's ratio

0.45  
0.40  
0.35  
0.30  
0.25  
0.20  
0.15  
0.10  
0.05

$G_{Voigt\ Reuss\ Hill}(GPa)$

1000  
800  
600  
400  
200  
0

0

200

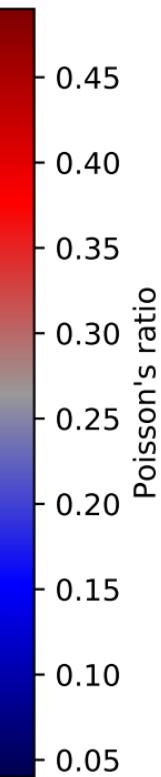
400

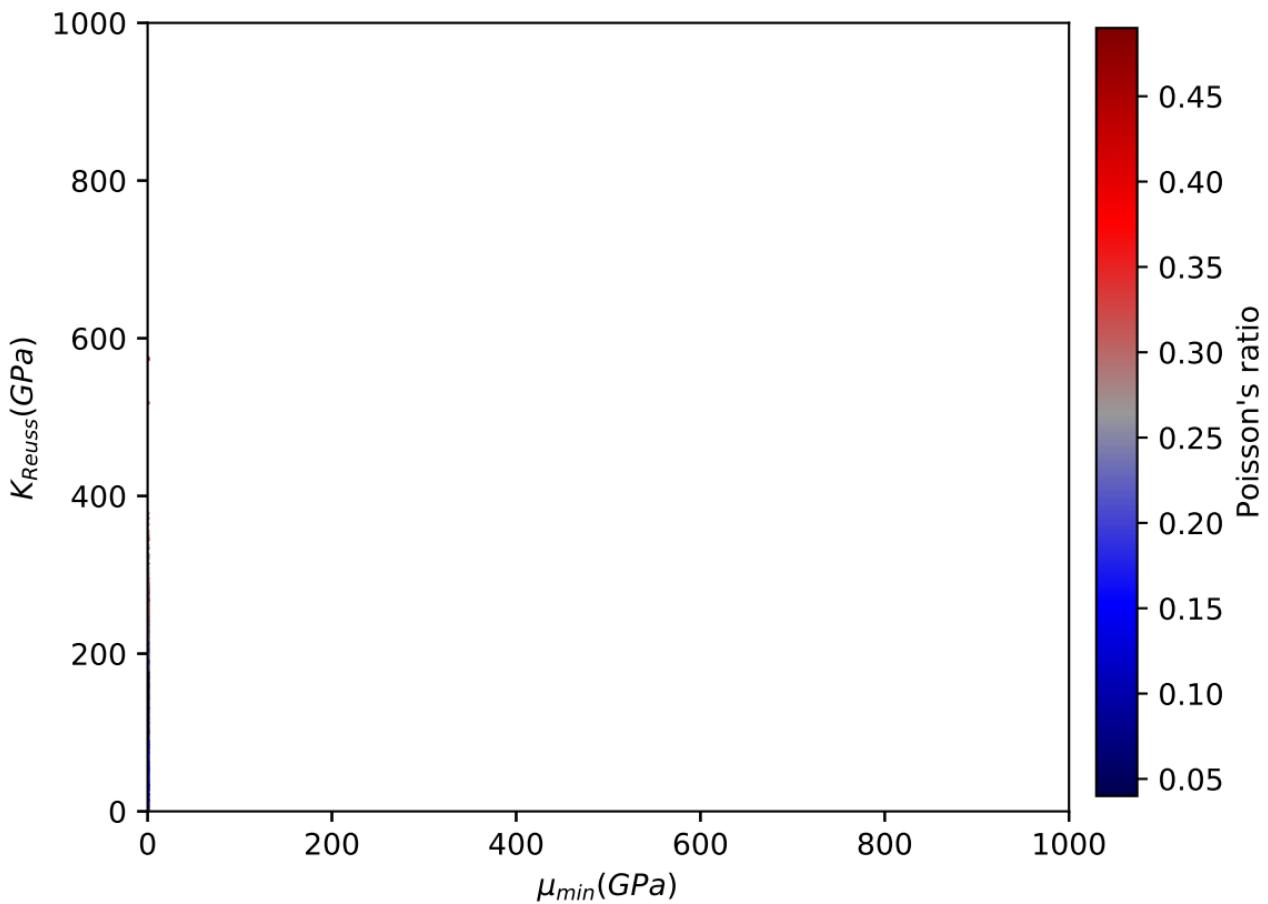
600

800

1000

$\mu_{min}(GPa)$





$K_{Vogt}(GPa)$ 

1000

800

600

400

200

0

200

400

600

800

1000

 $\mu_{min}(GPa)$ 

0.45

0.40

0.35

0.30

0.25

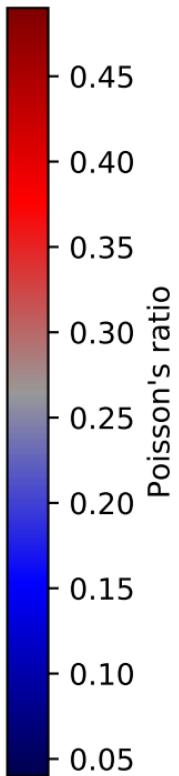
0.20

0.15

0.10

0.05

Poisson's ratio



$K_{\text{voigt Reuss Hill}}(\text{GPa})$

1000

800

600

400

200

0

200

400

600

800

1000

$\mu_{\min}(\text{GPa})$

0.45

0.40

0.35

0.30

0.25

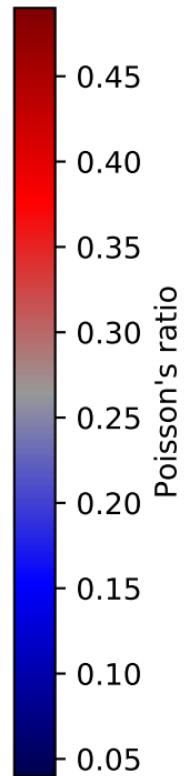
0.20

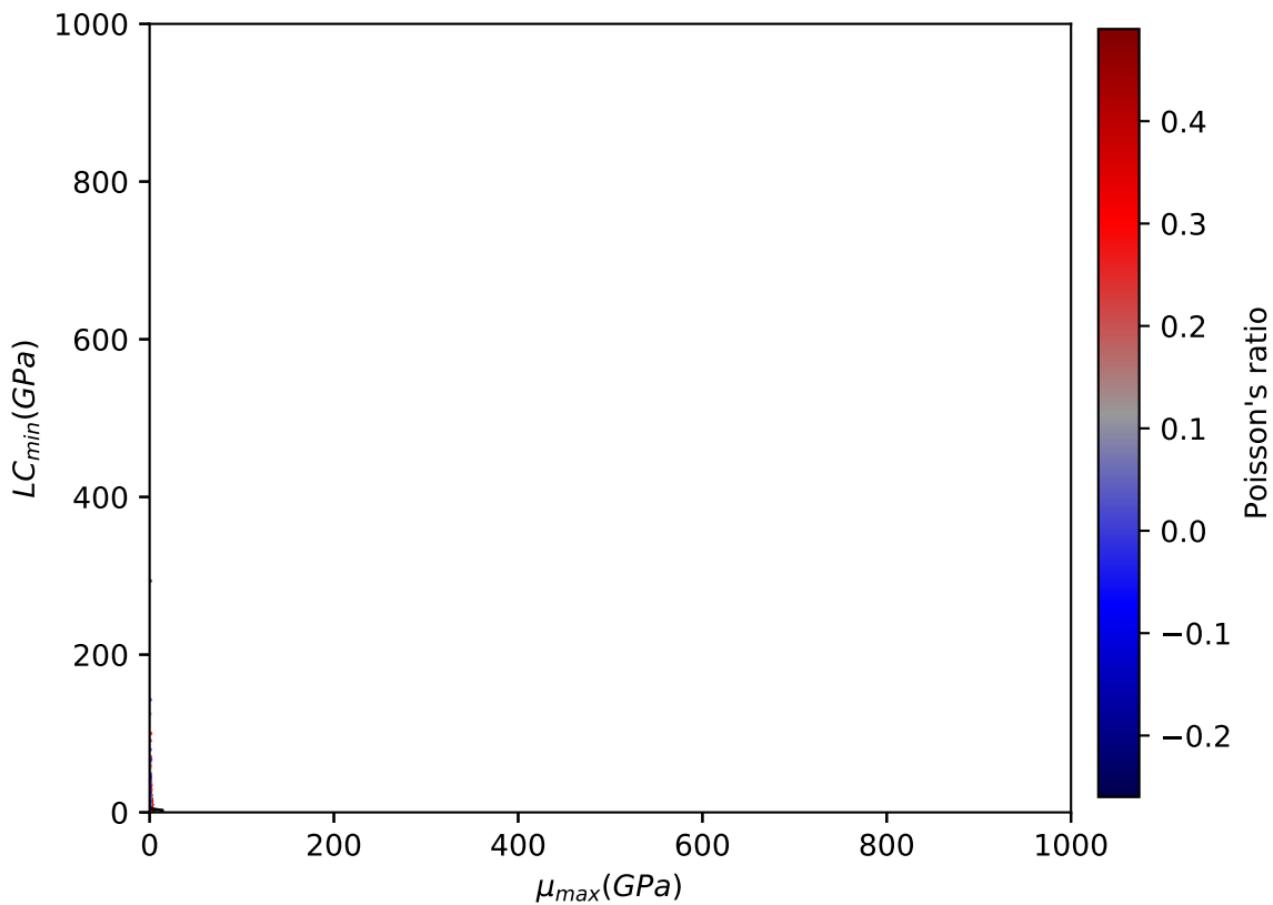
0.15

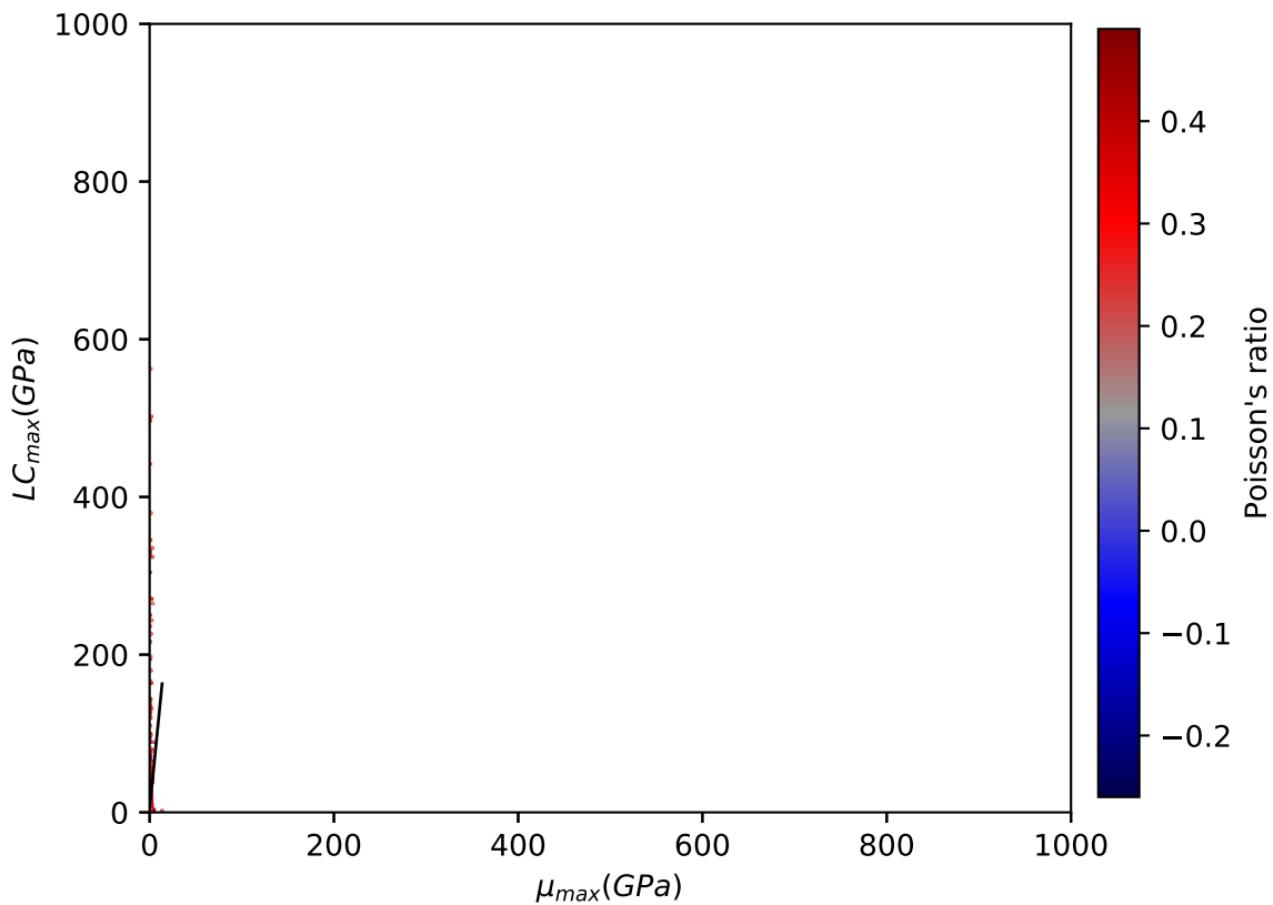
0.10

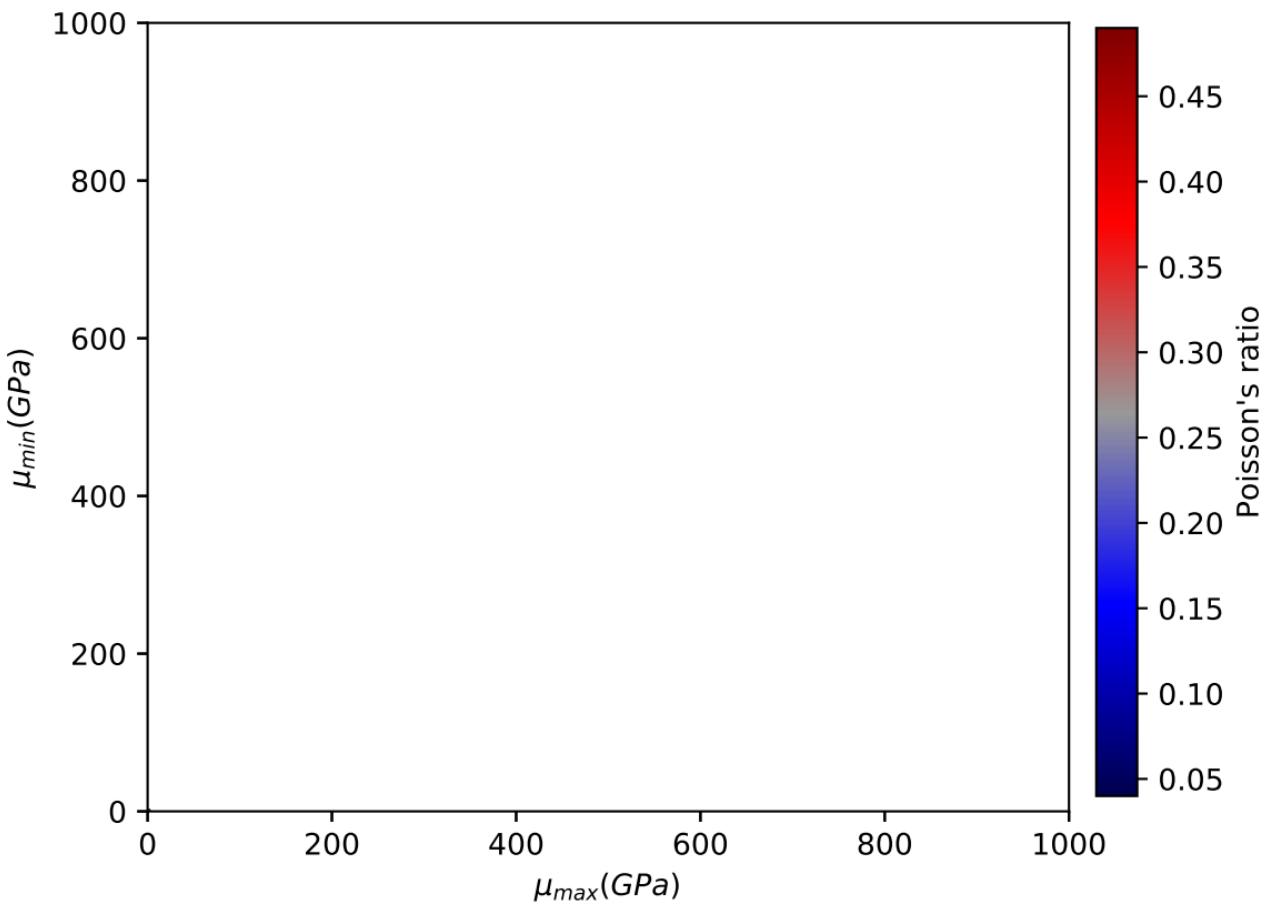
0.05

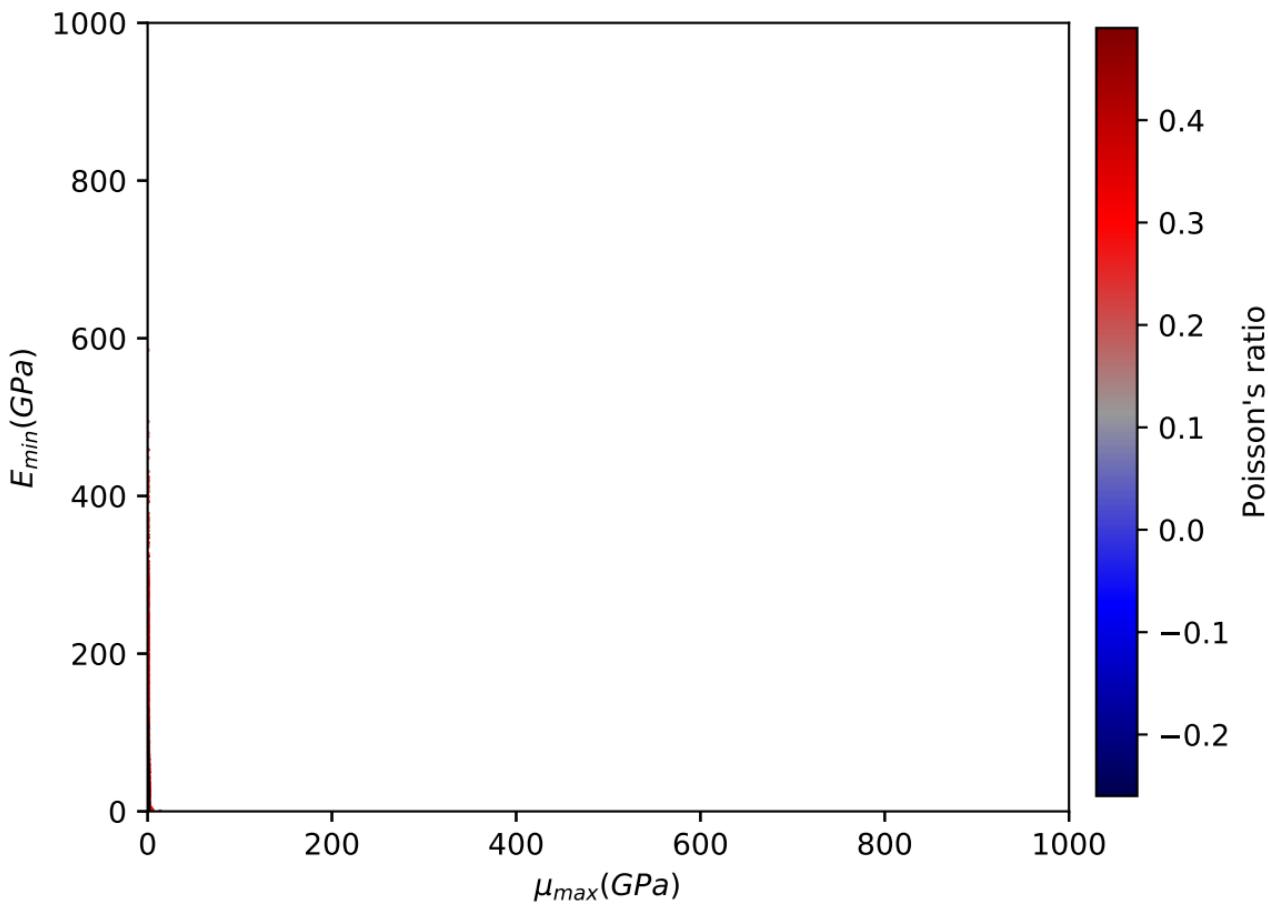
Poisson's ratio

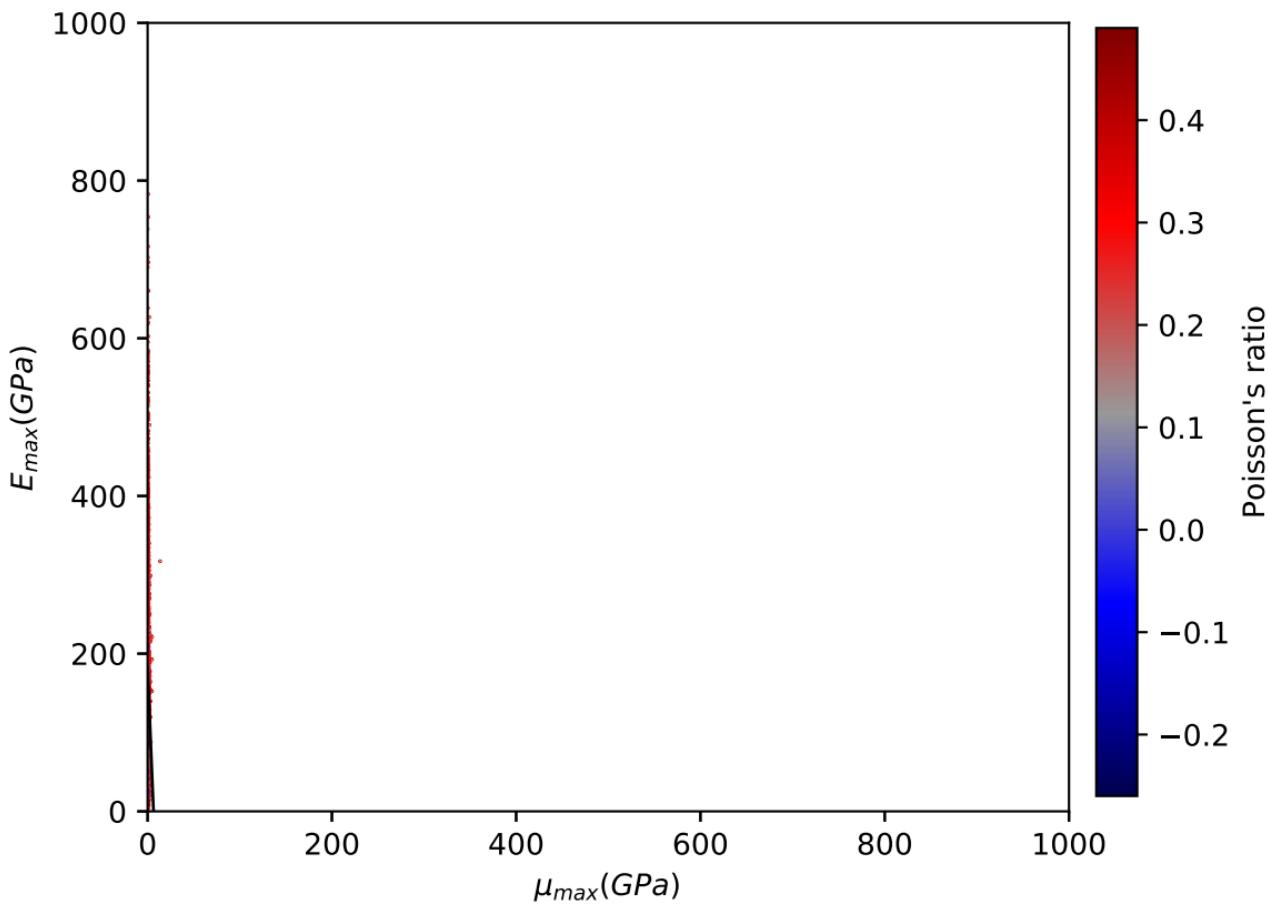


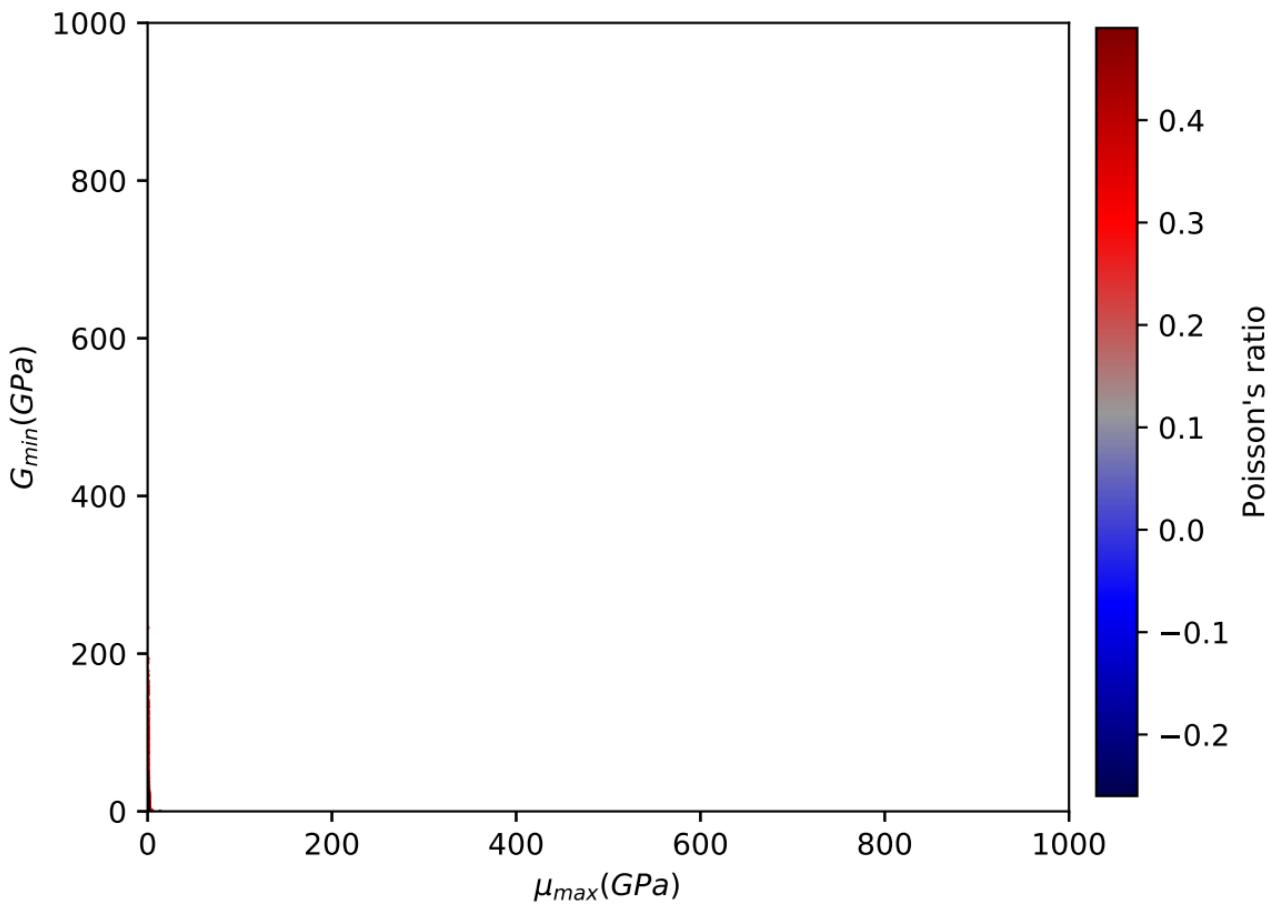


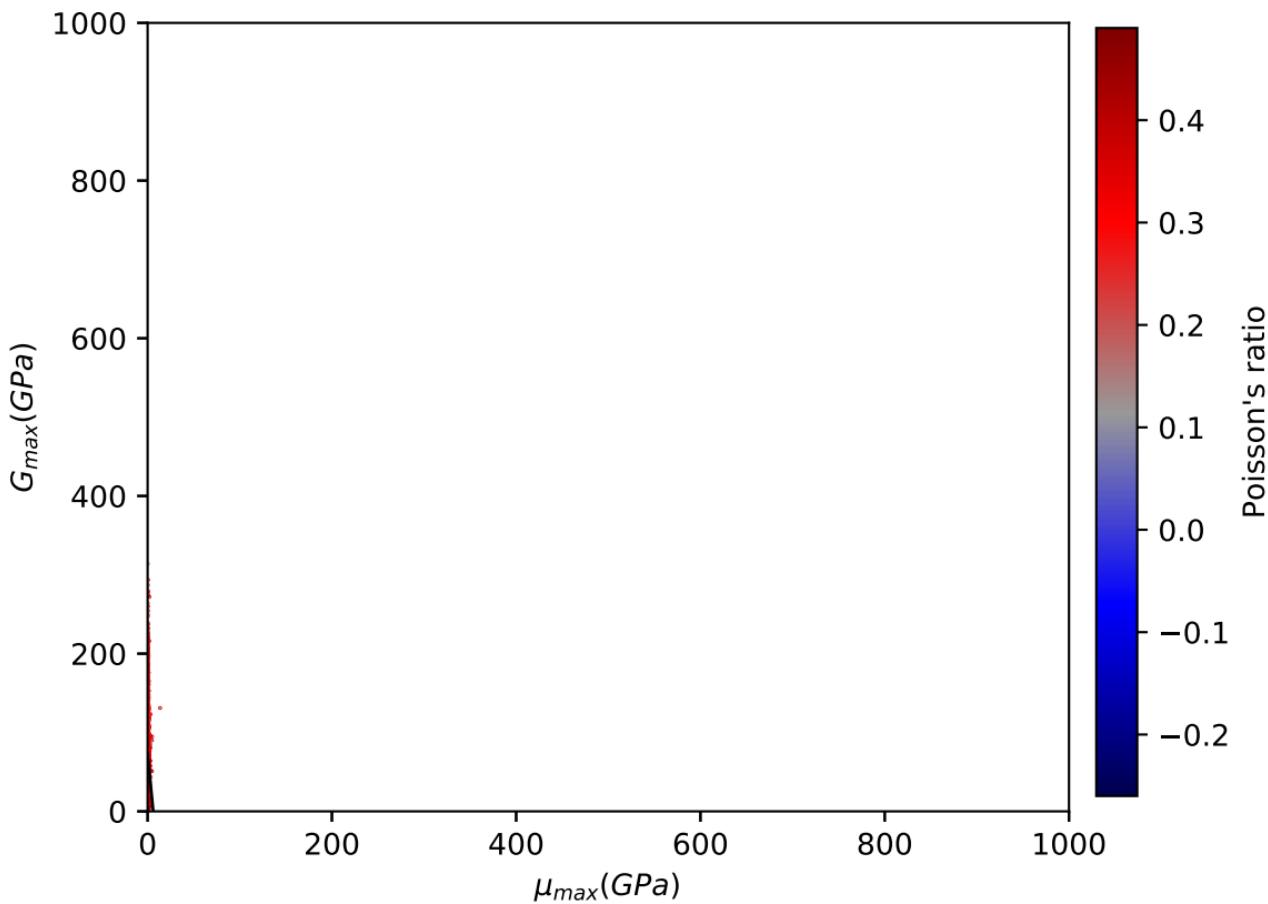


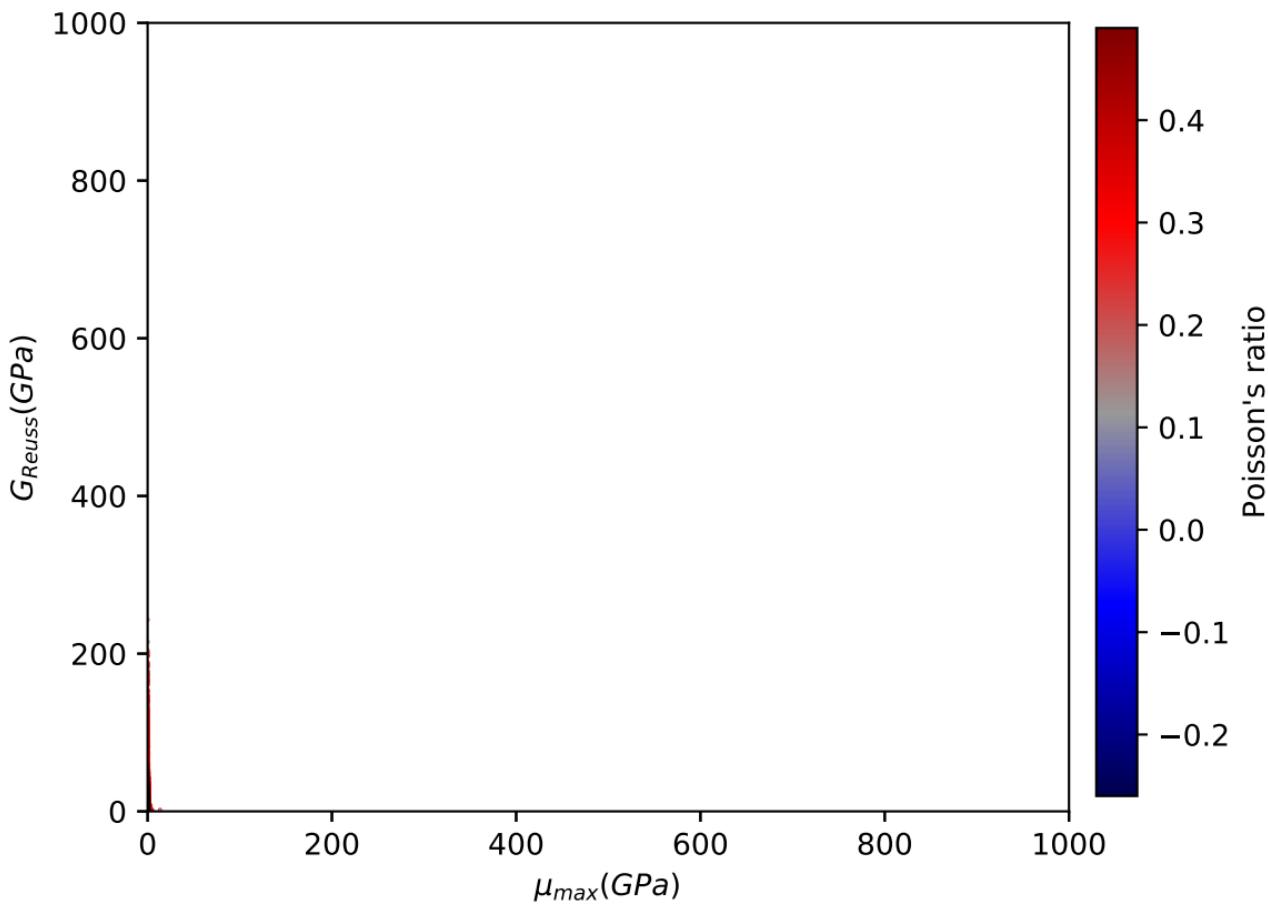












$G_{Vogt}(GPa)$ 

1000  
800  
600  
400  
200  
0

0

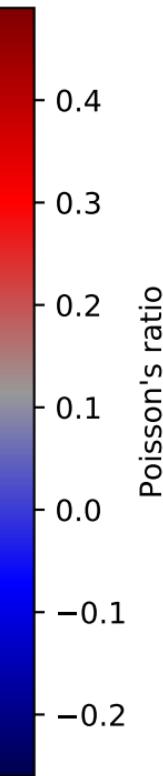
200

400

600

800

1000

 $\mu_{max}(GPa)$ 

$G_{Voigt\ Reuss\ Hill}(GPa)$

1000

800

600

400

200

0

200

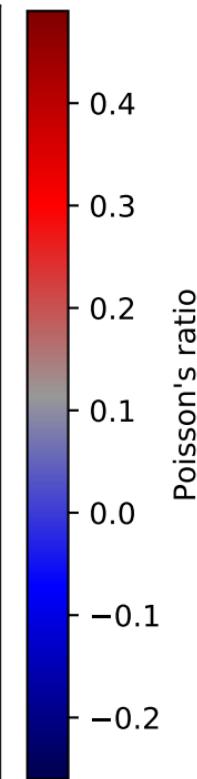
400

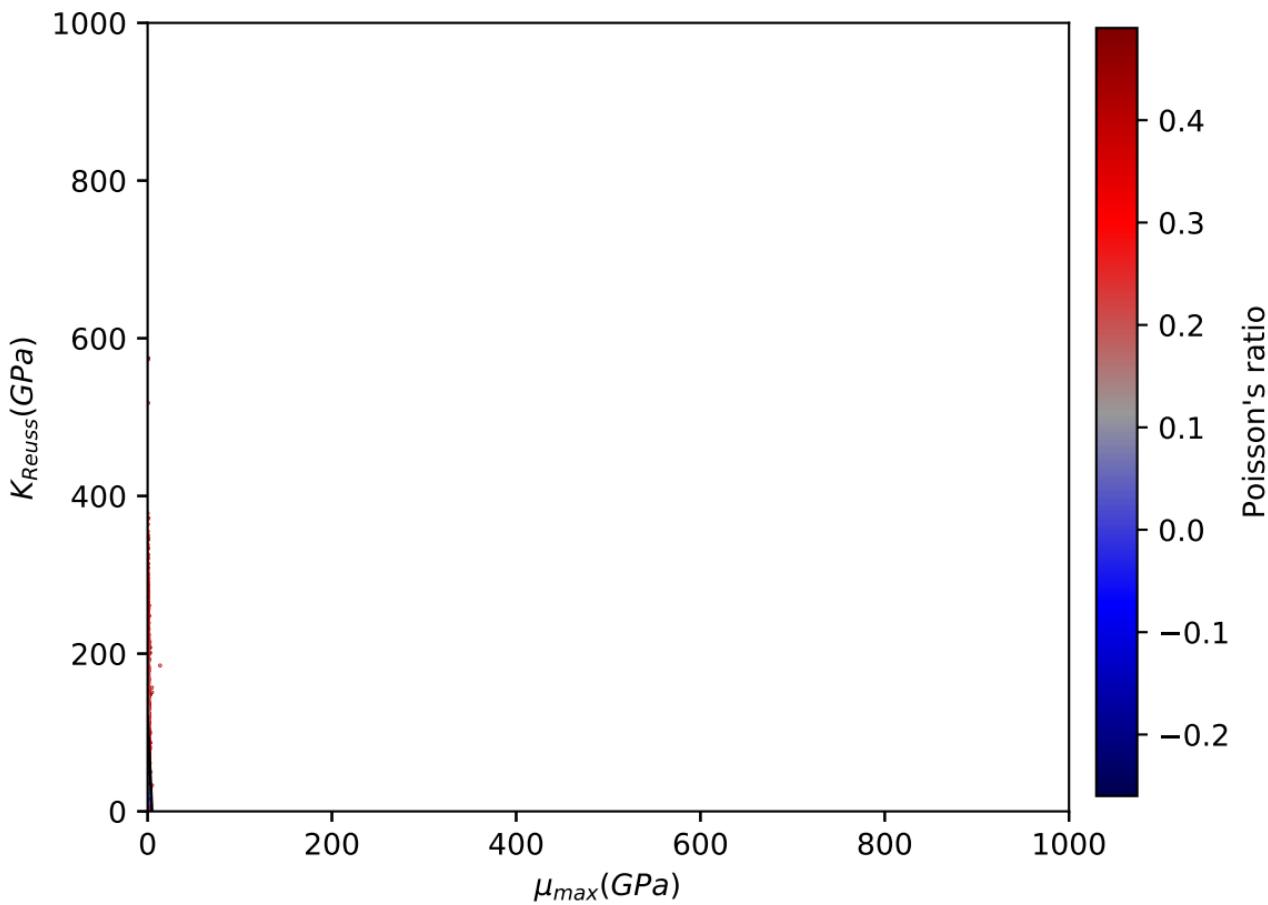
600

800

1000

$\mu_{max}(GPa)$





$K_{Voigt}(GPa)$ 

1000

800

600

400

200

0

200

400

600

800

1000

 $\mu_{max}(GPa)$ 

Poisson's ratio

$K_{voigt \text{ Reuss } Hill}(GPa)$

1000

800

600

400

200

0

200

400

600

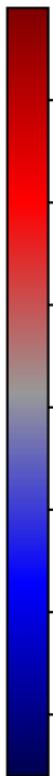
800

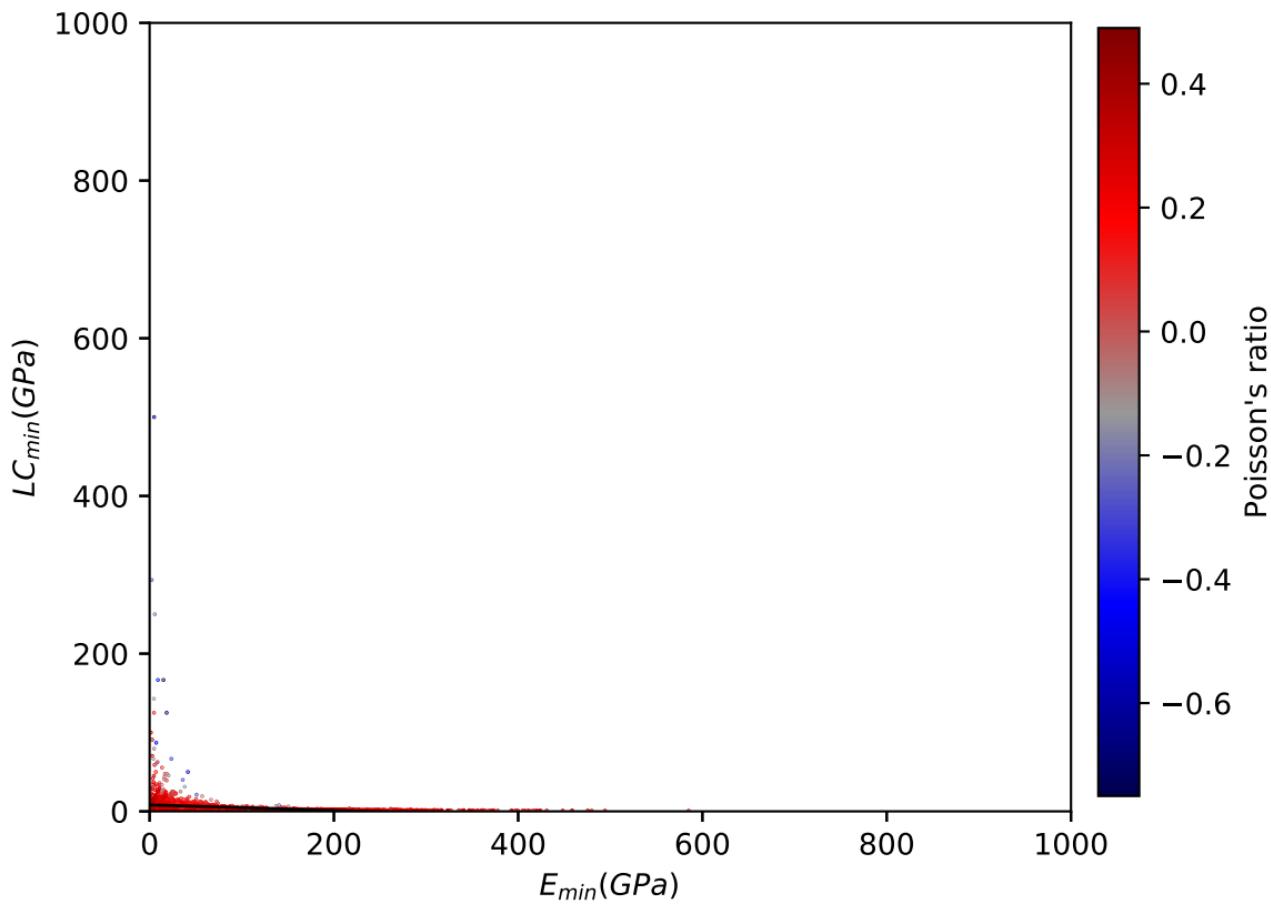
1000

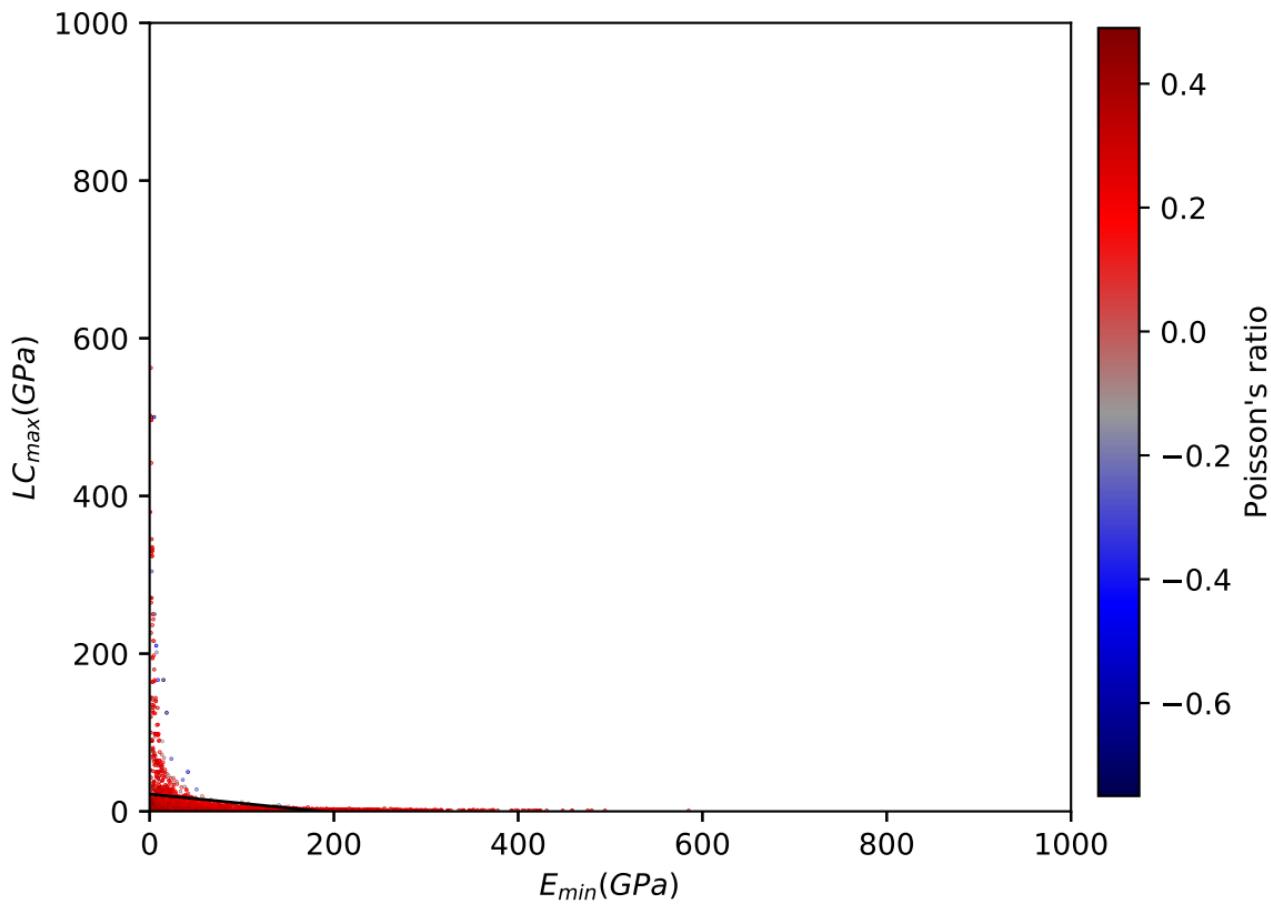
$\mu_{max}(GPa)$

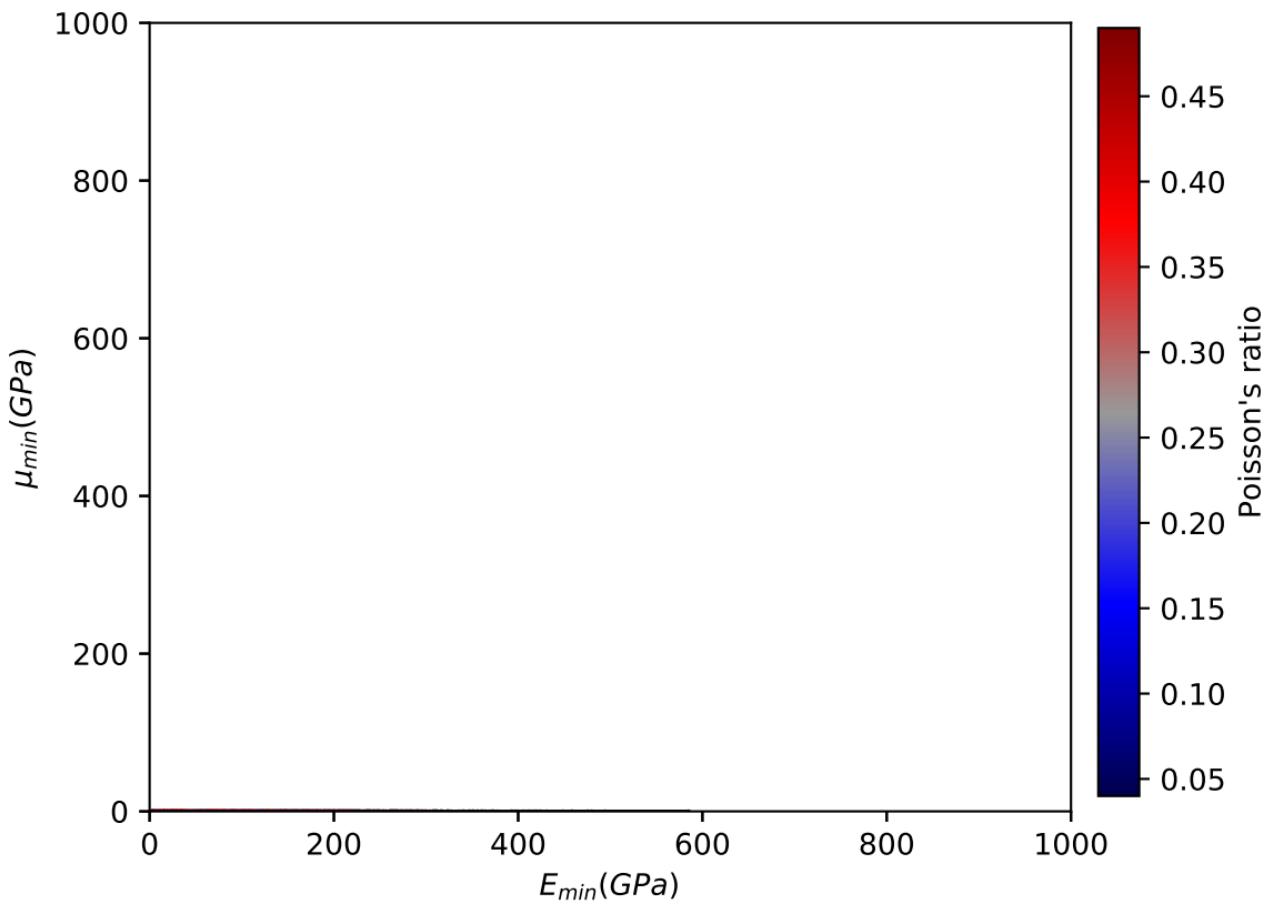
0.4  
0.3  
0.2  
0.1  
0.0  
-0.1  
-0.2

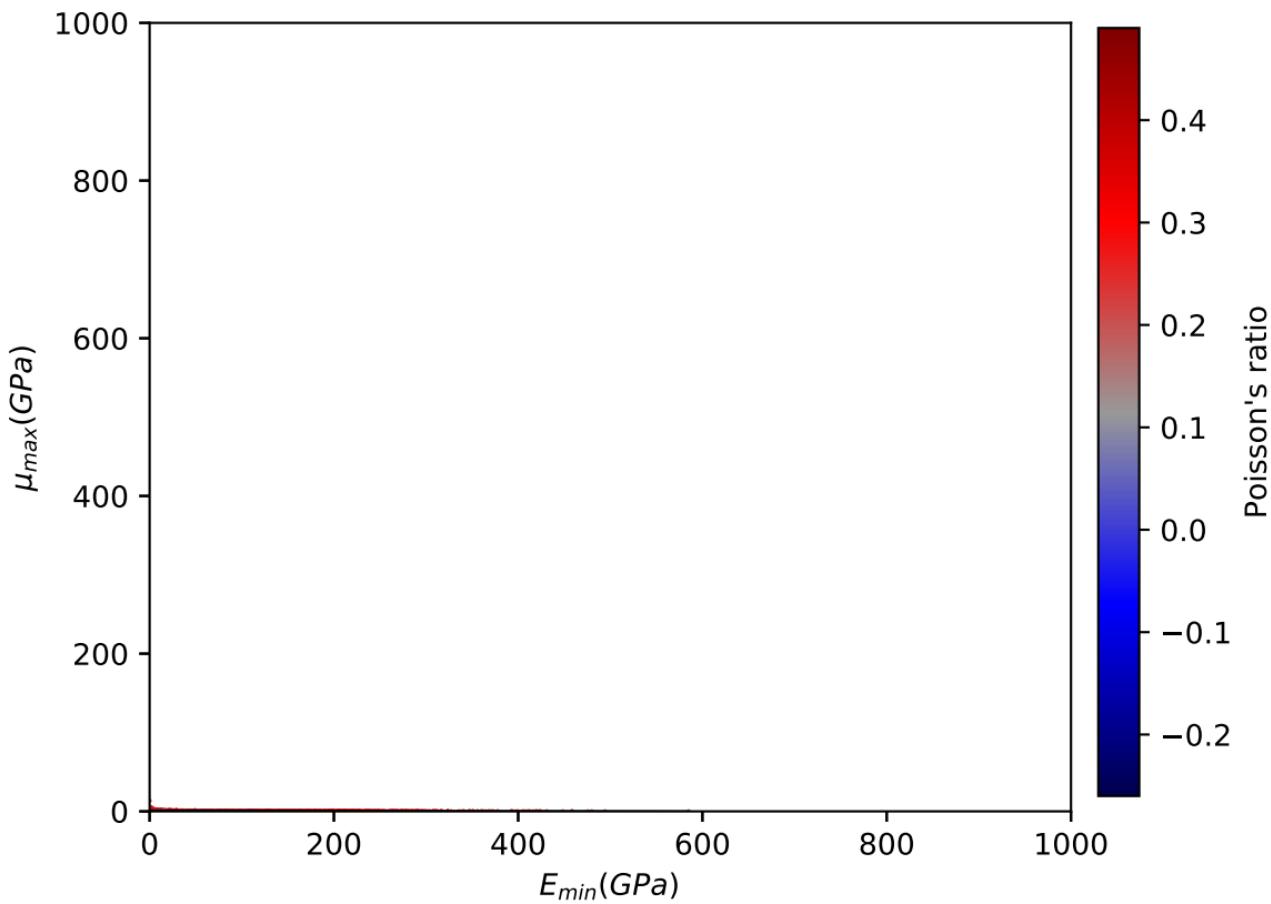
Poisson's ratio

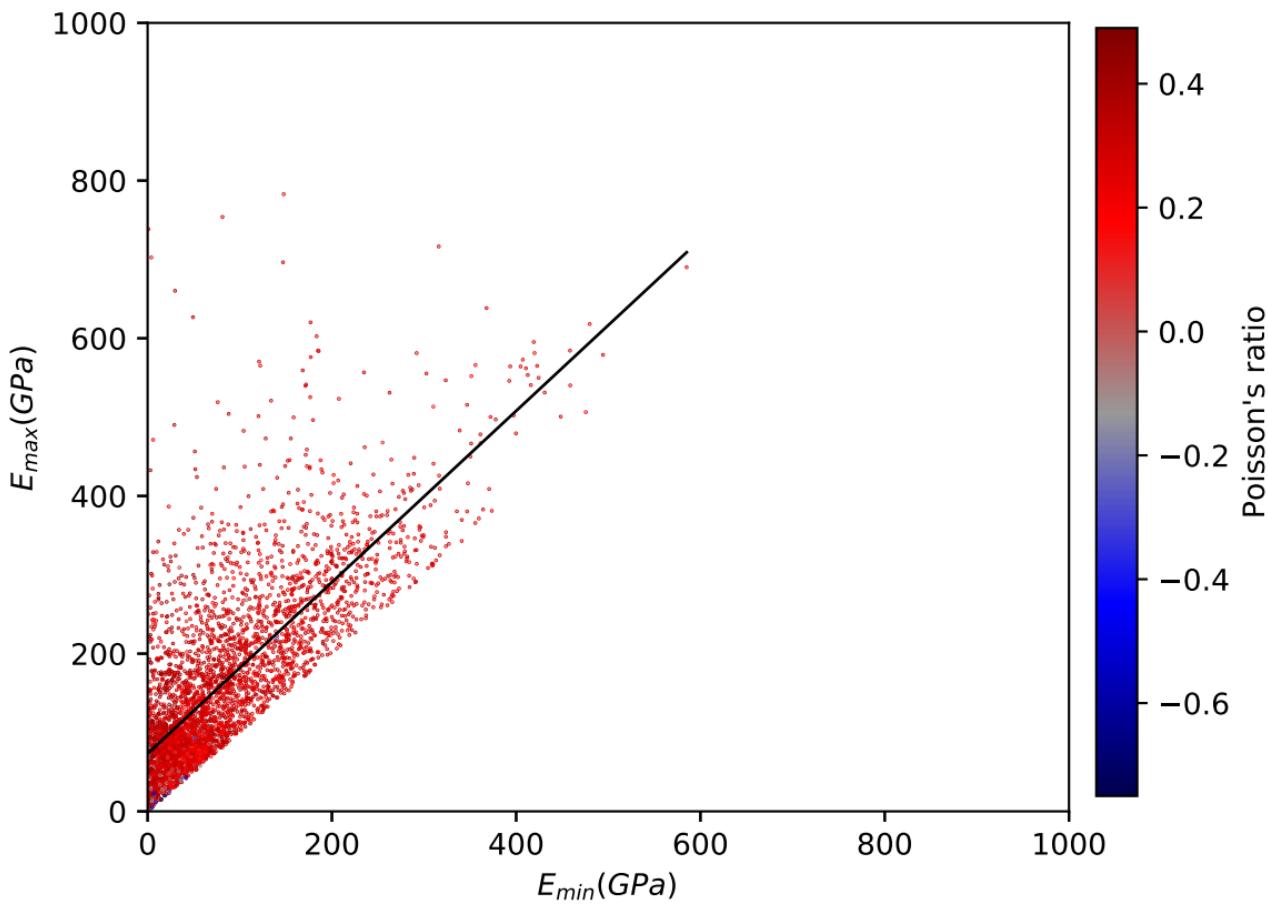


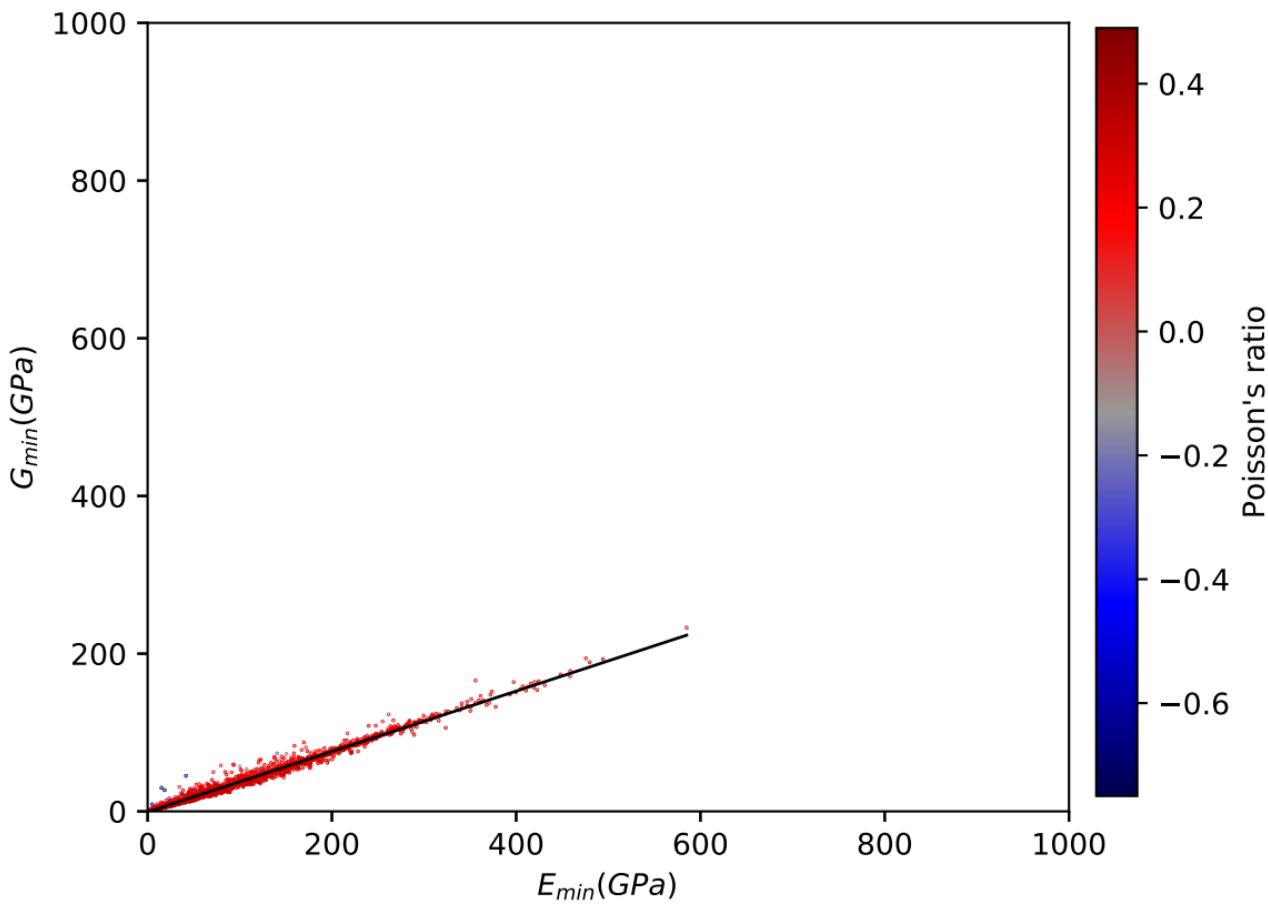


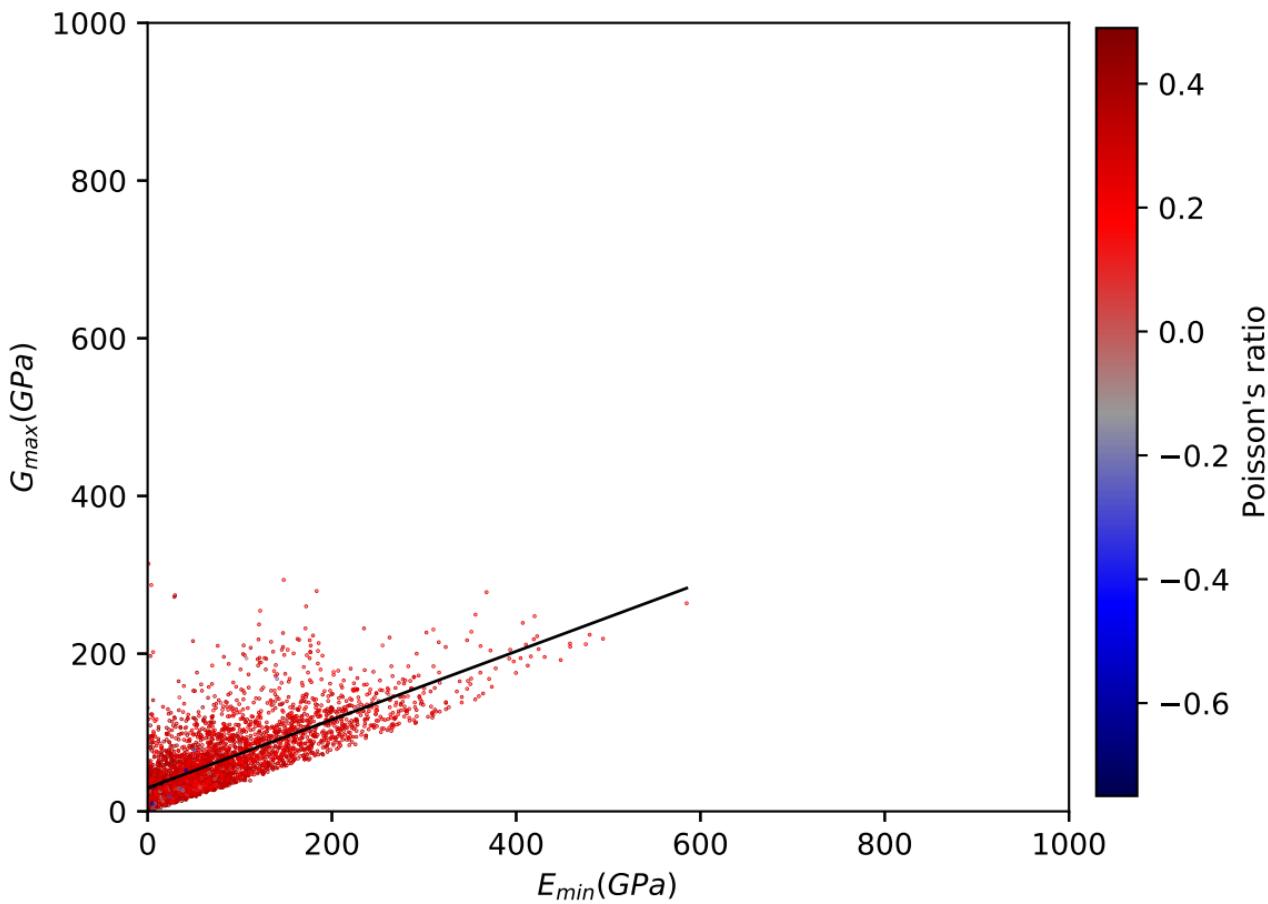


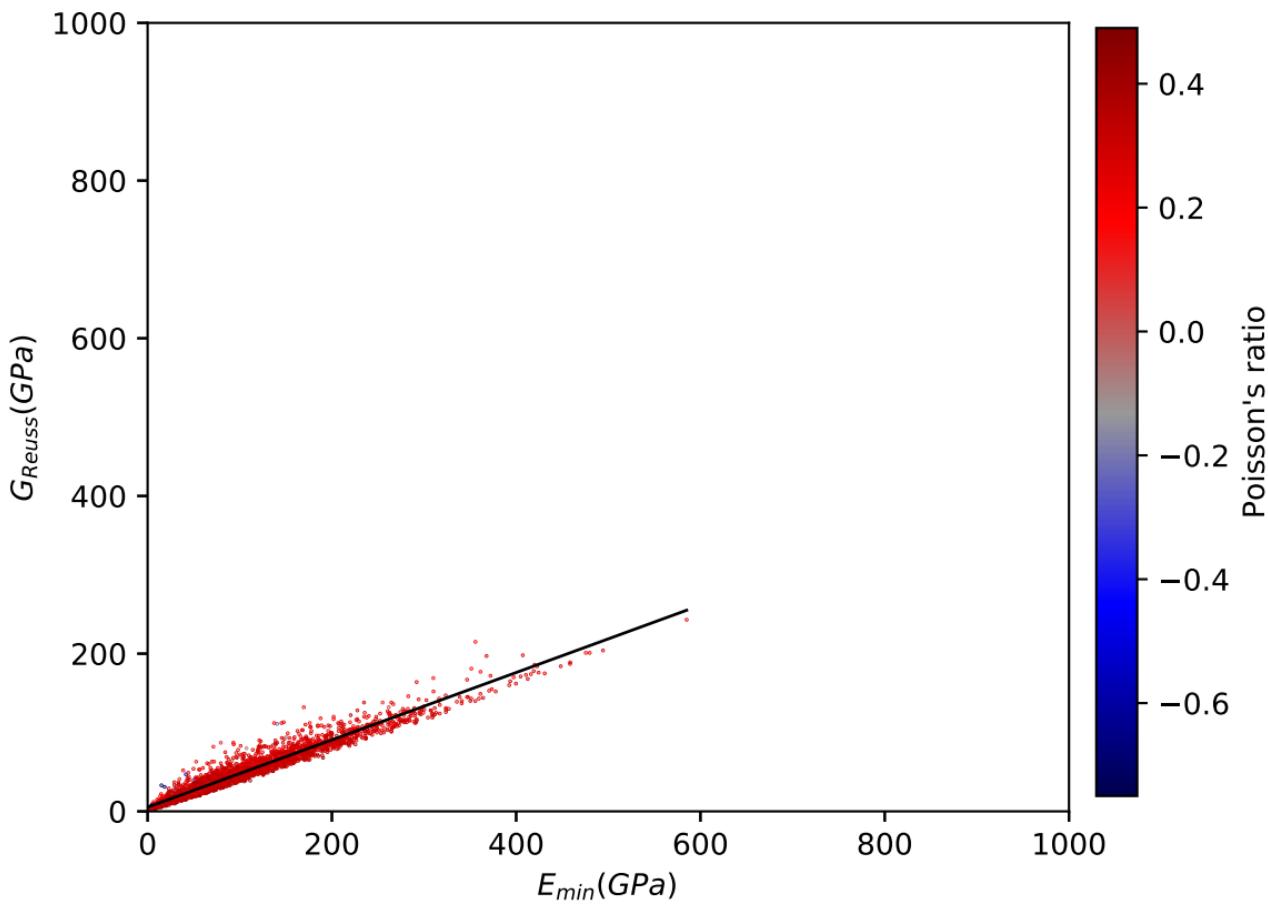












$G_{Vogt}$ (GPa)

1000

800

600

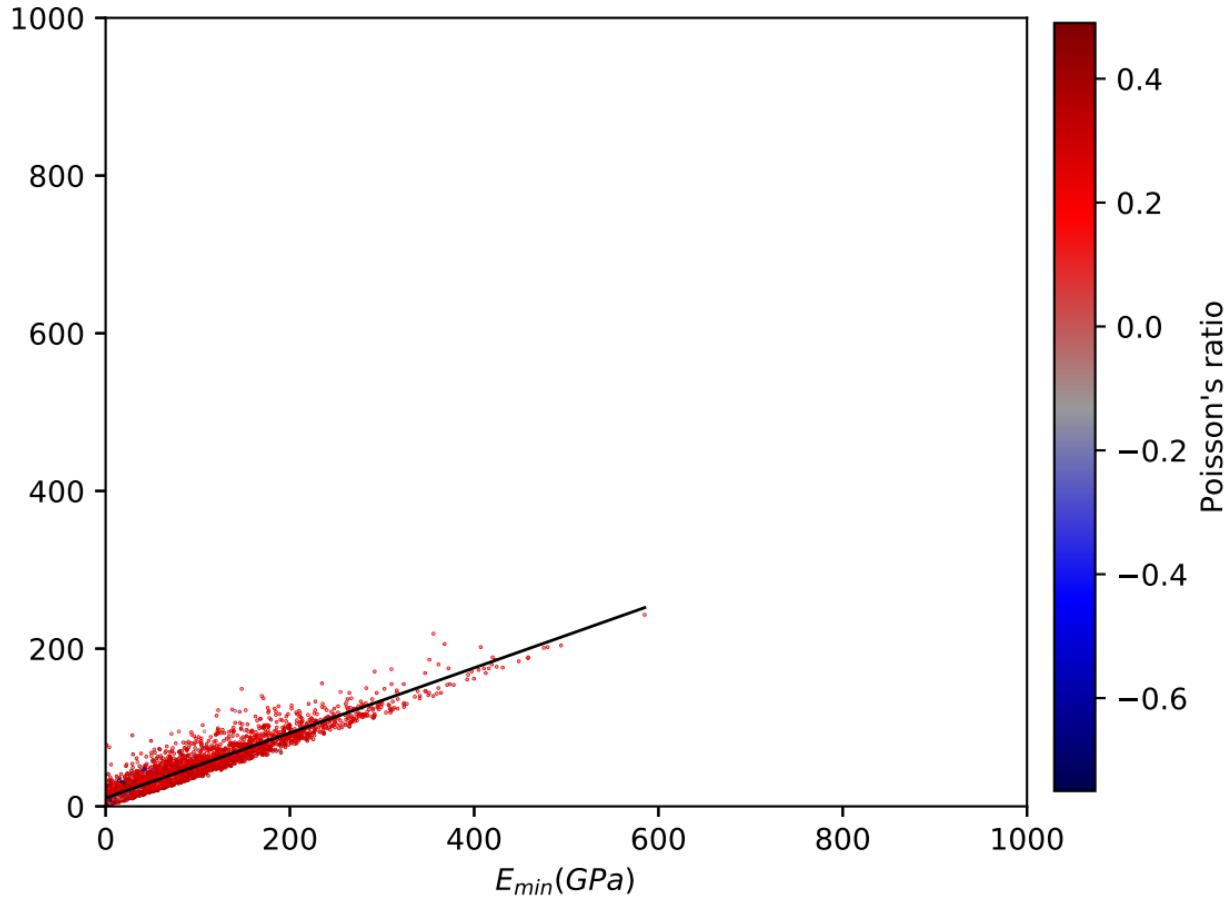
400

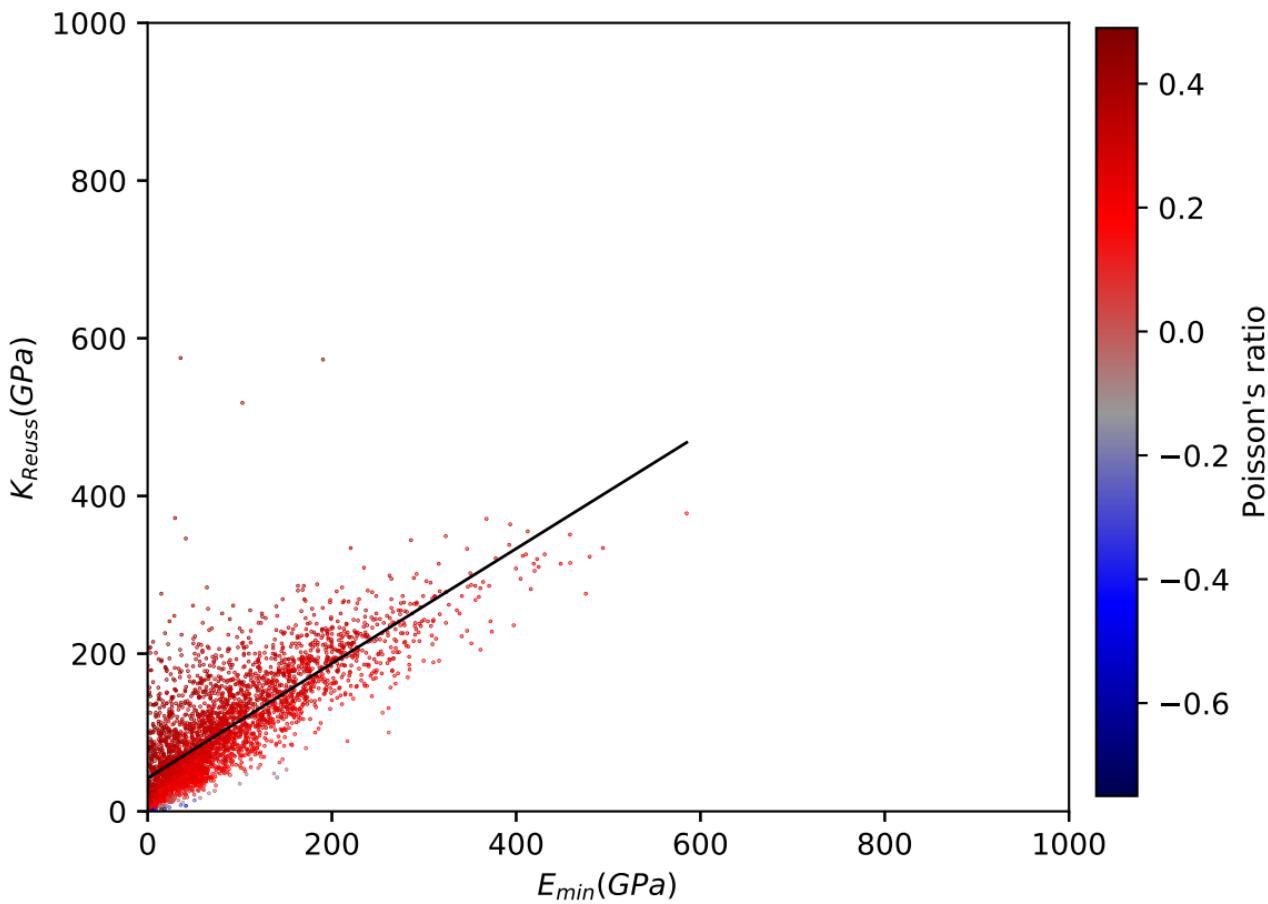
200

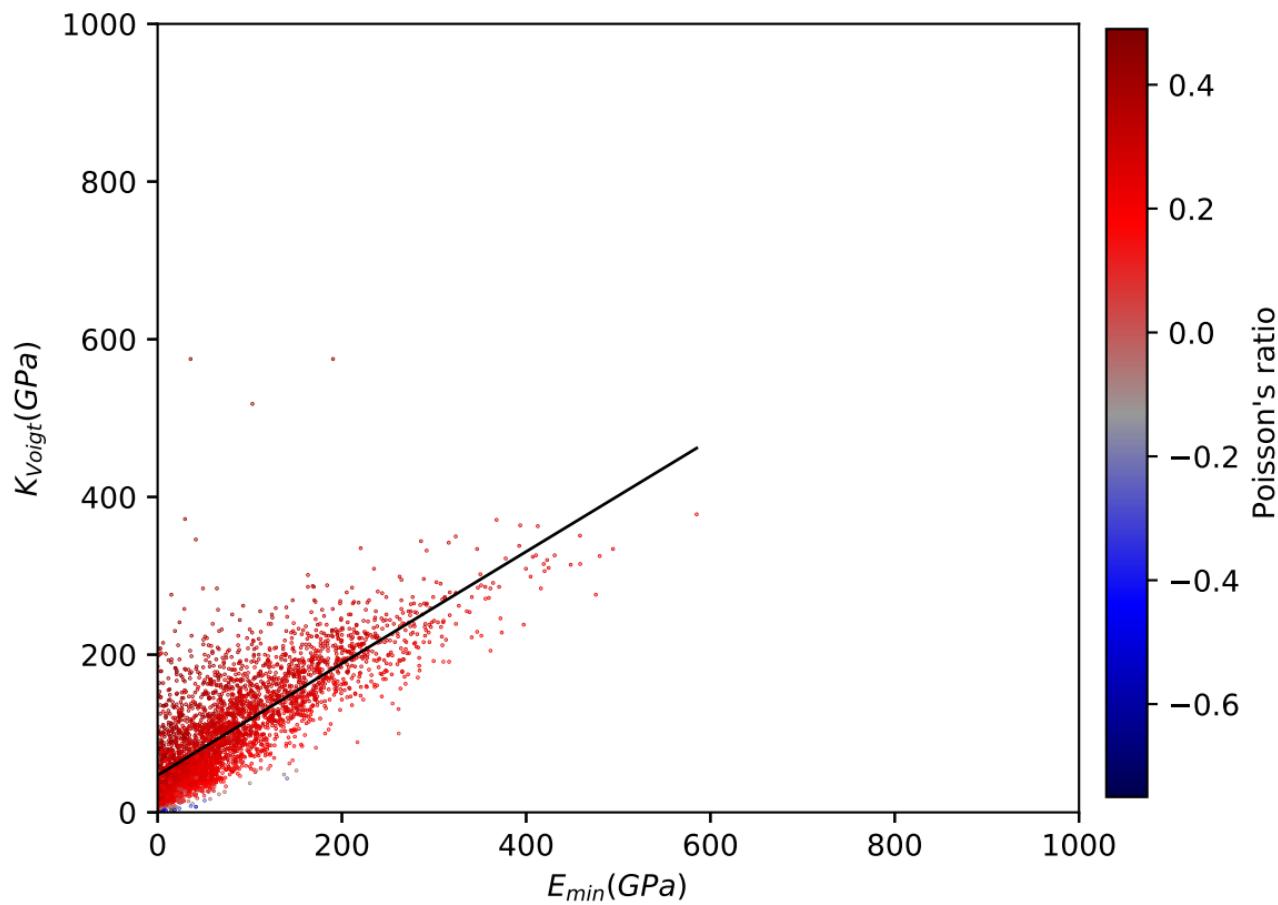
0

 $E_{min}$ (GPa)

Poisson's ratio

$G_{\text{Voigt Reuss Hill}}(\text{GPa})$ 





$K_{voigt \text{ Reuss } Hill}(GPa)$ 

1000

800

600

400

200

0

200

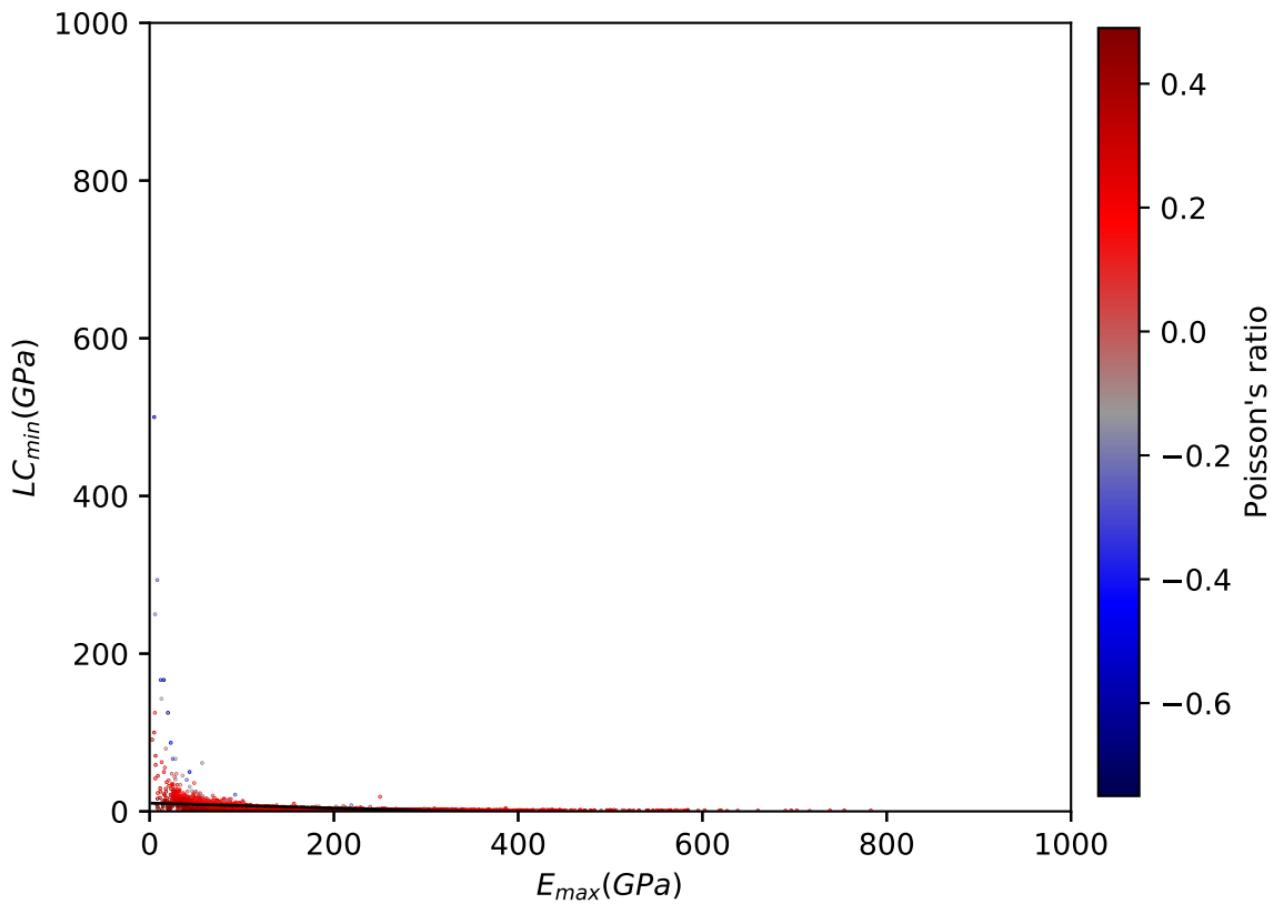
400

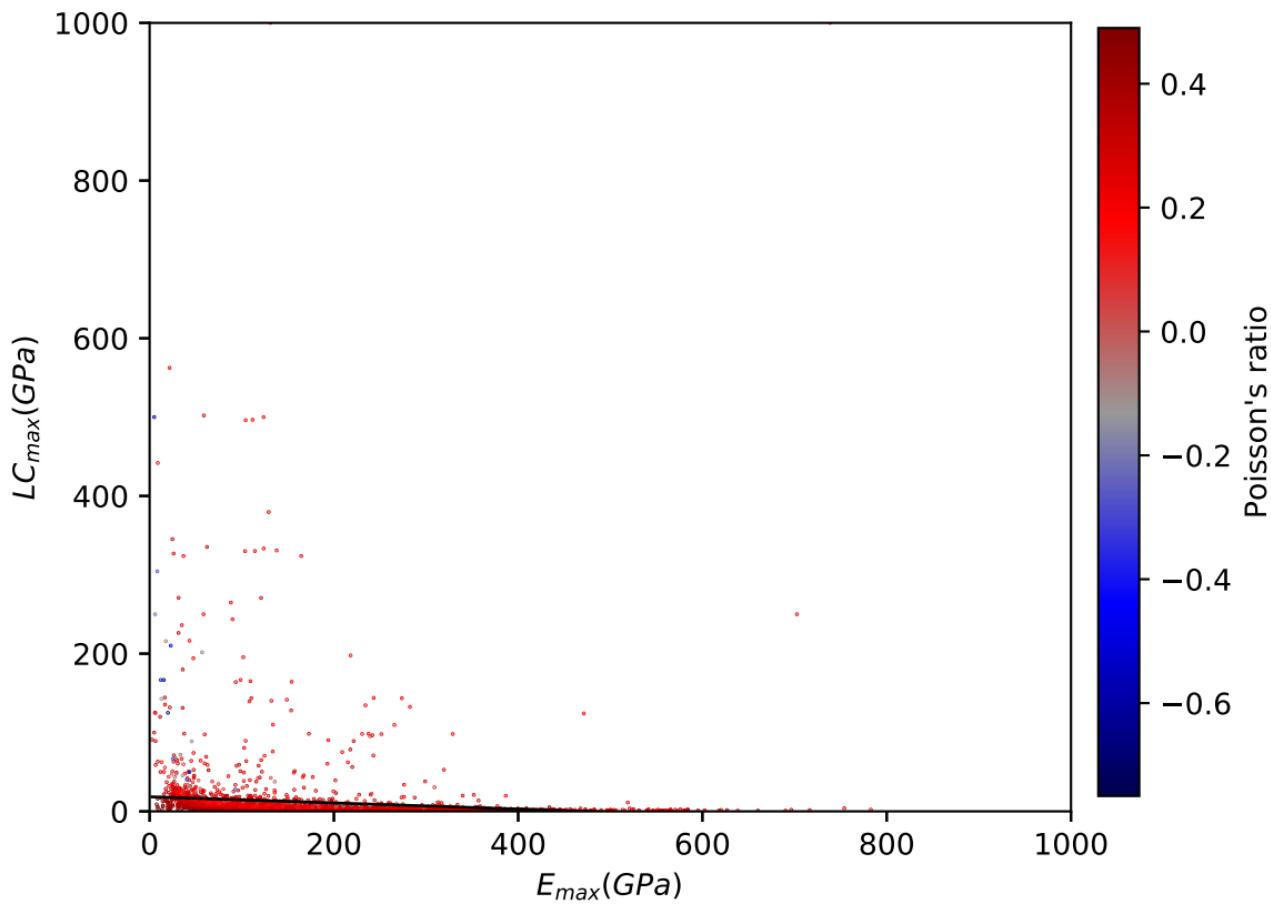
600

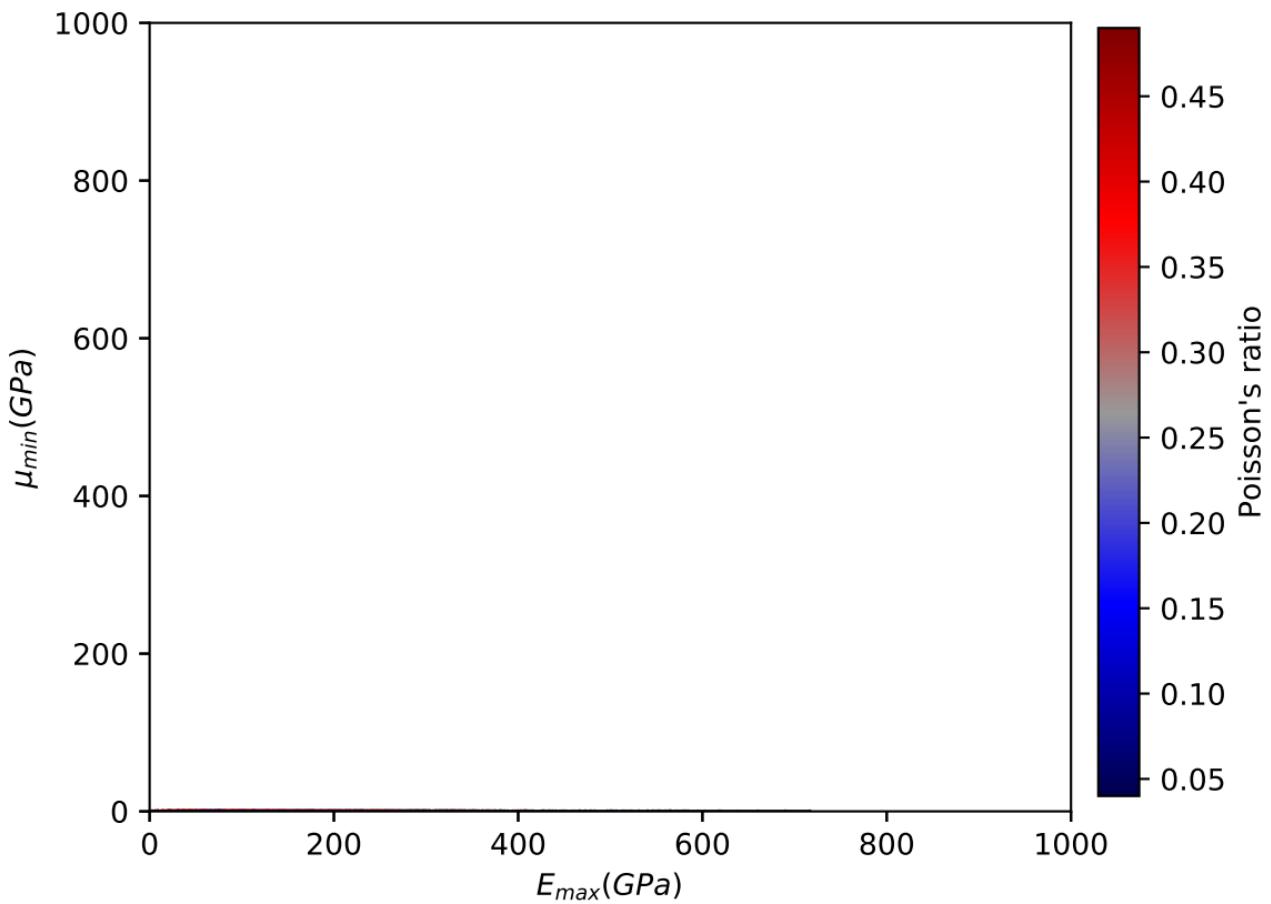
800

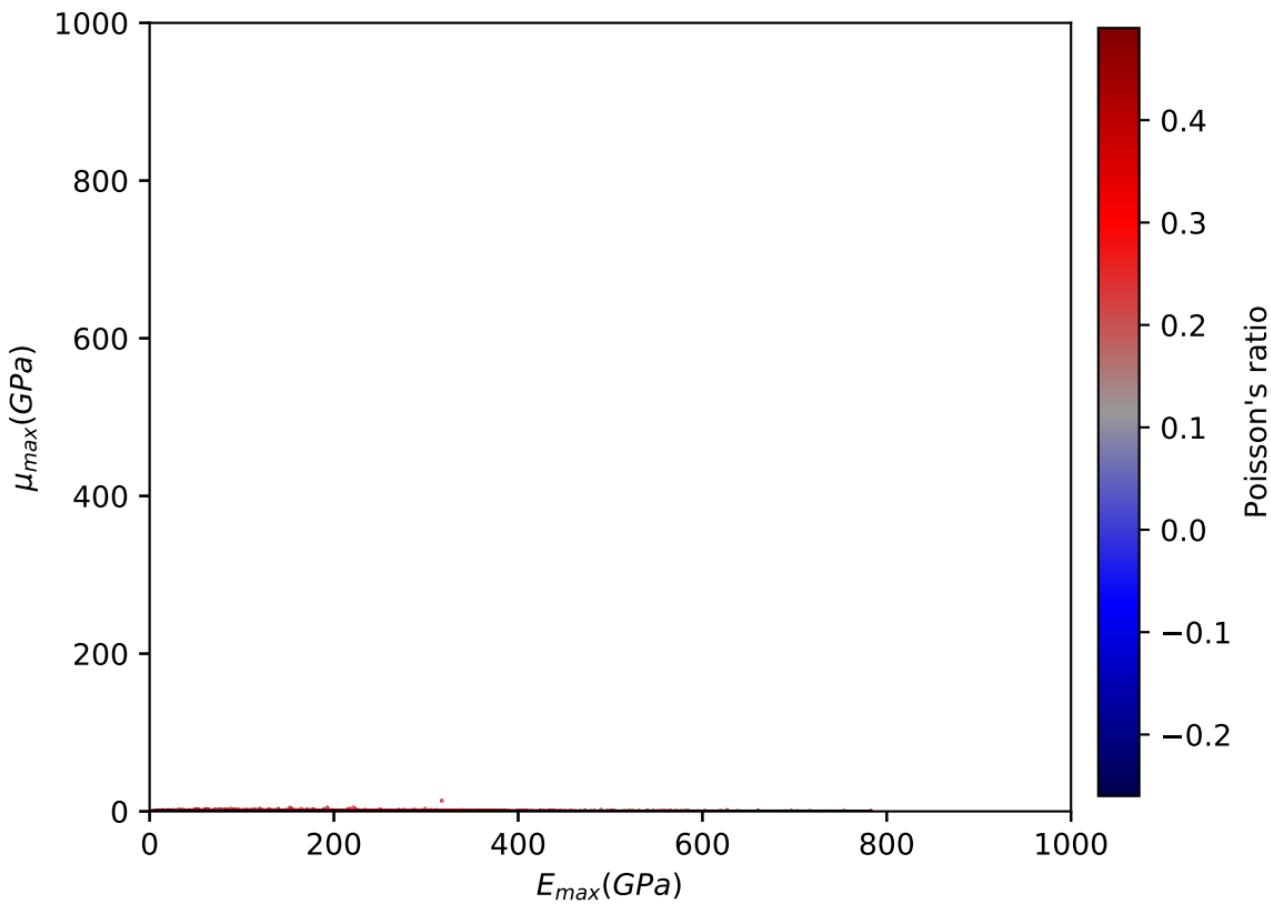
1000

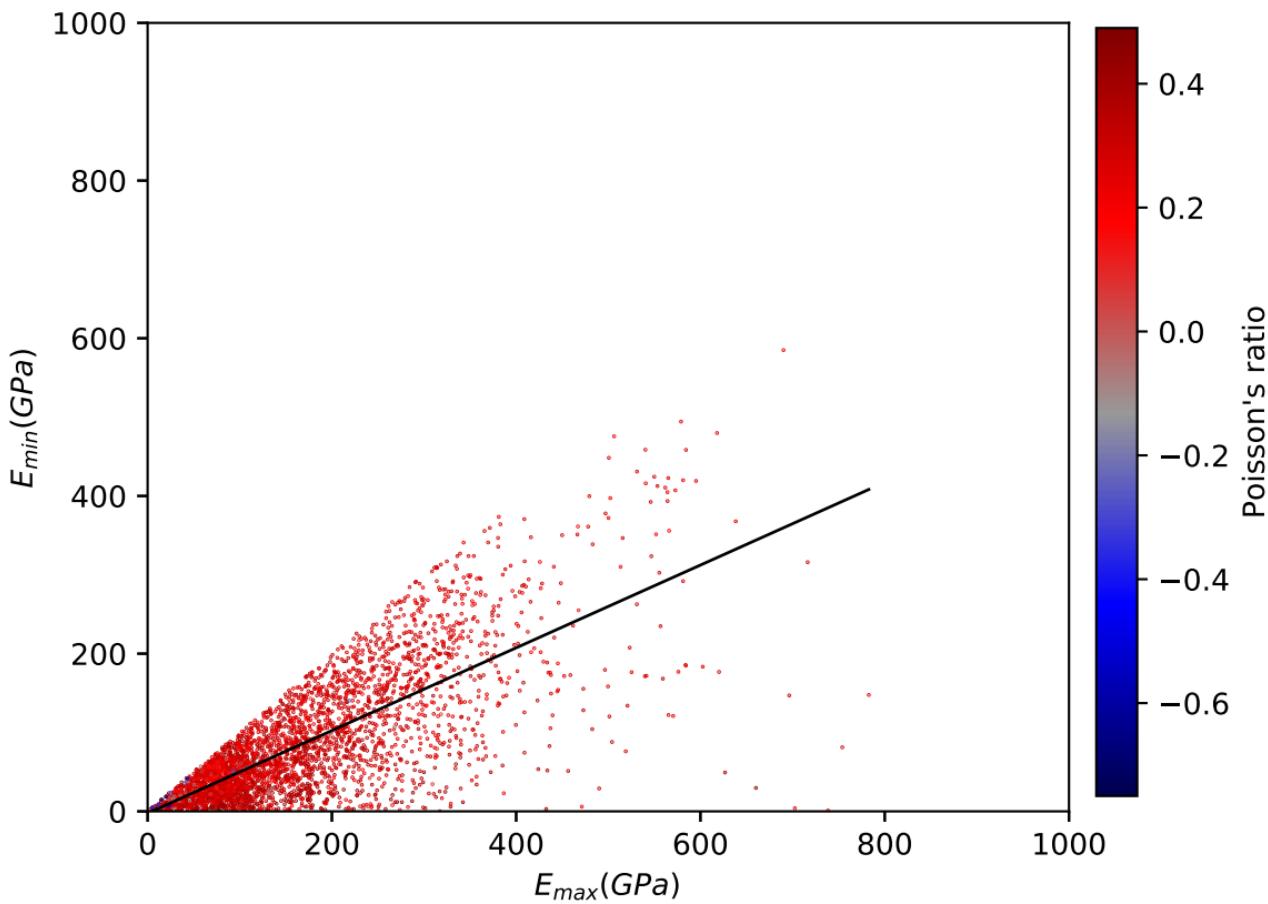
 $E_{min}(GPa)$  $Poisson's \text{ ratio}$

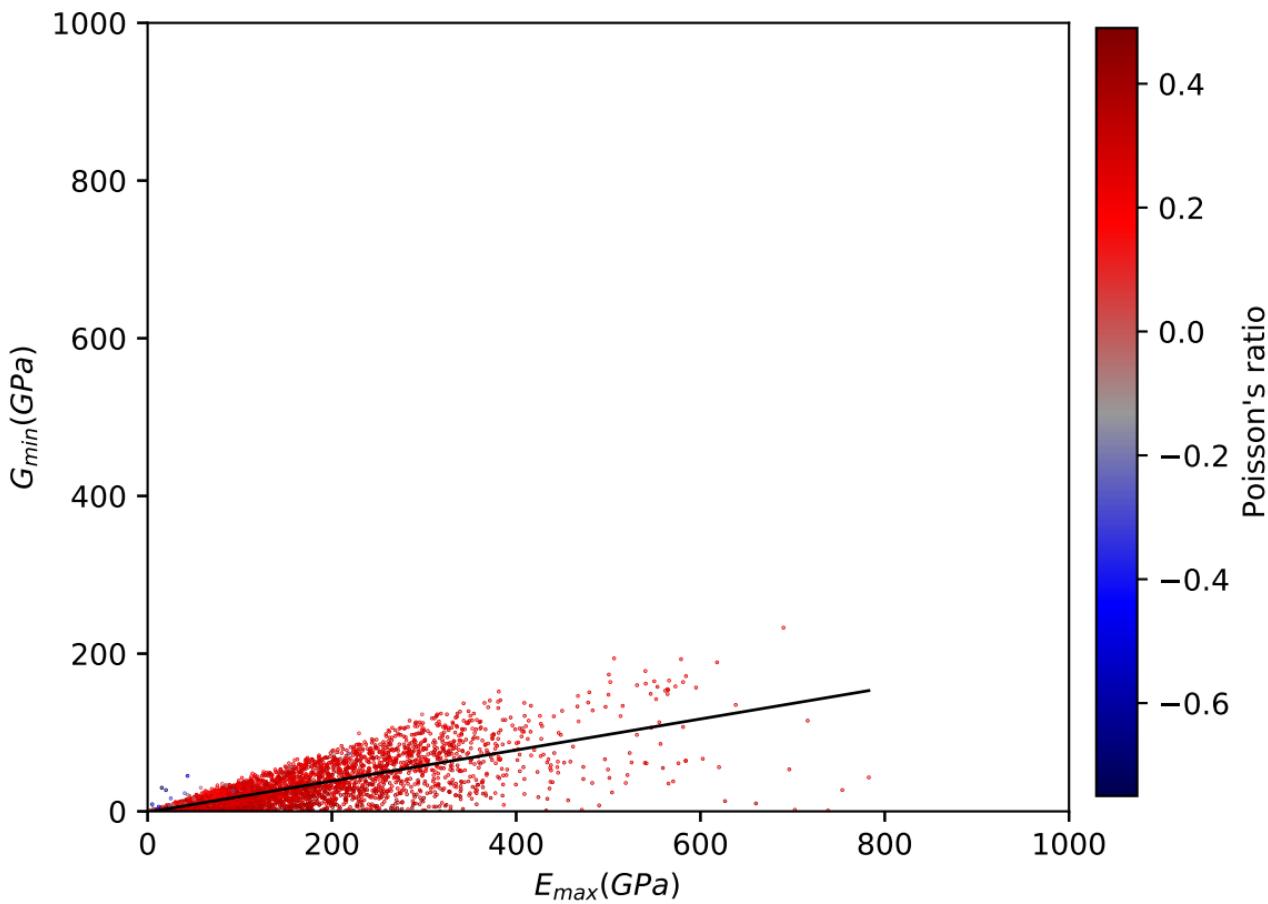


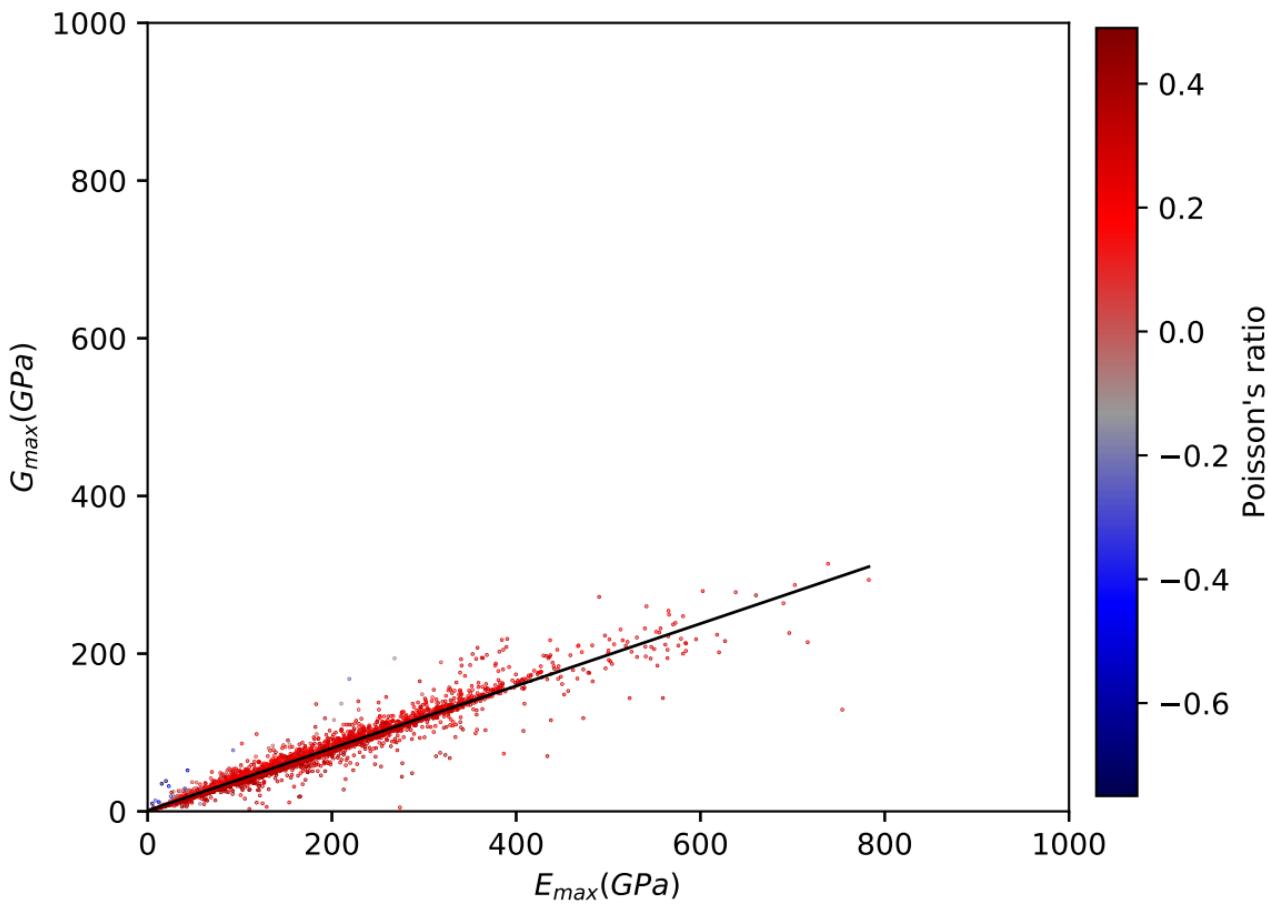


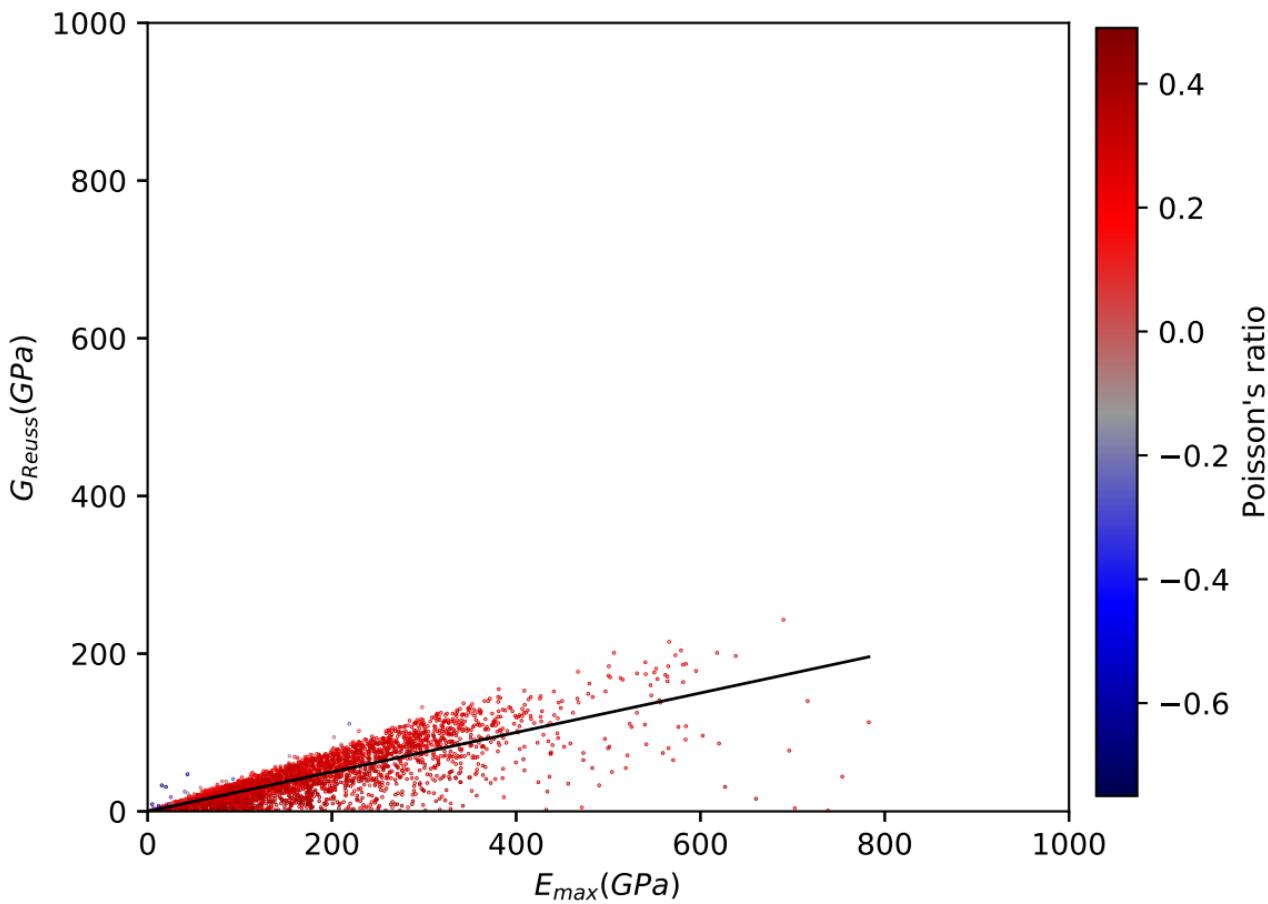


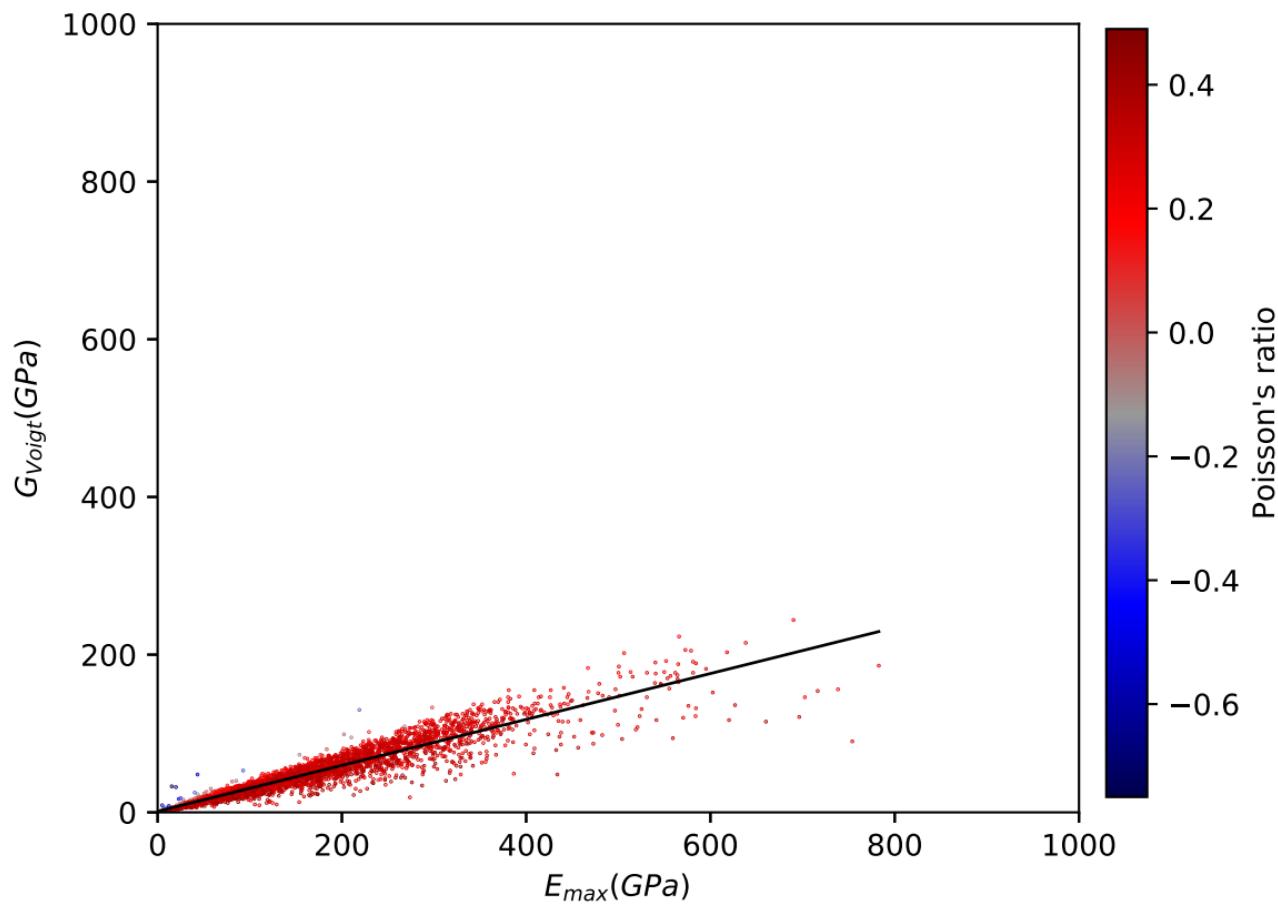


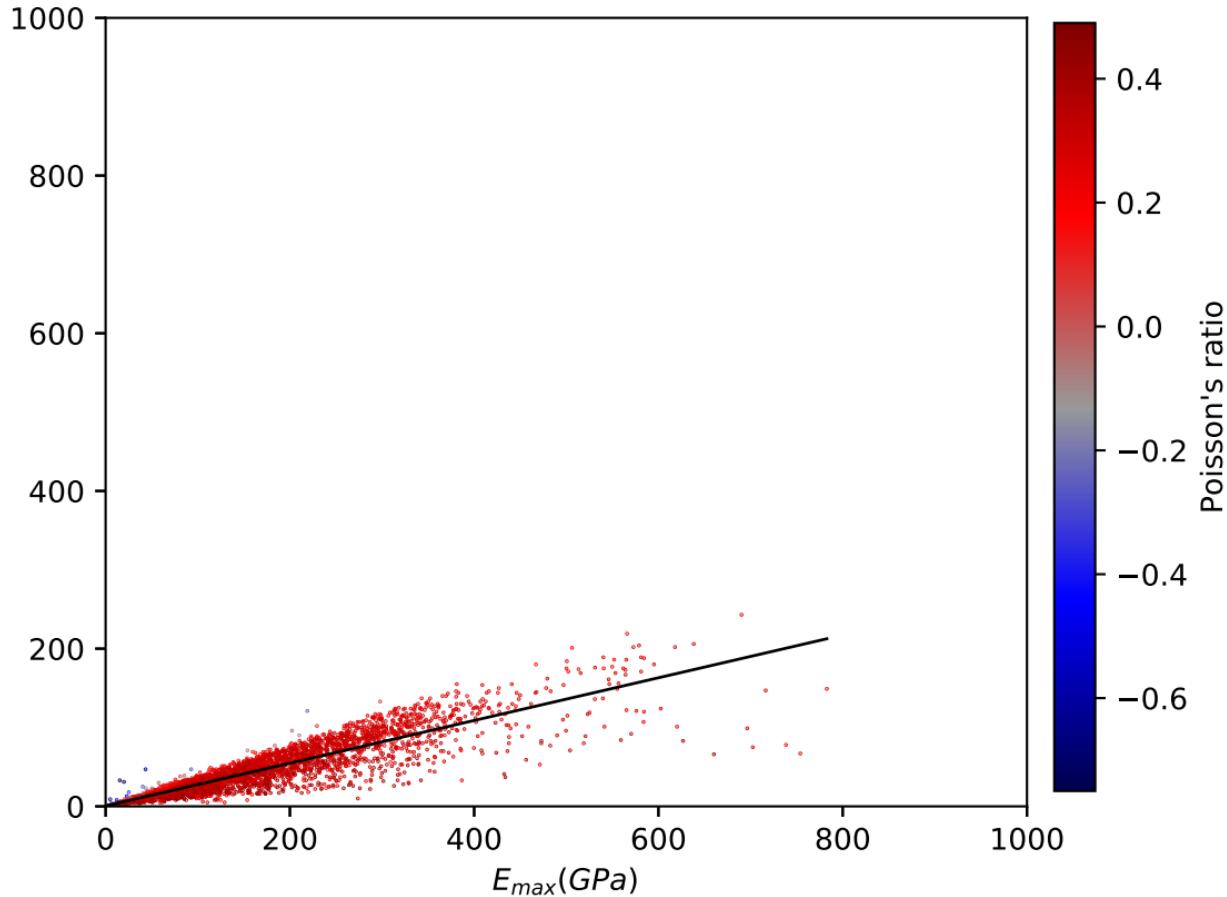


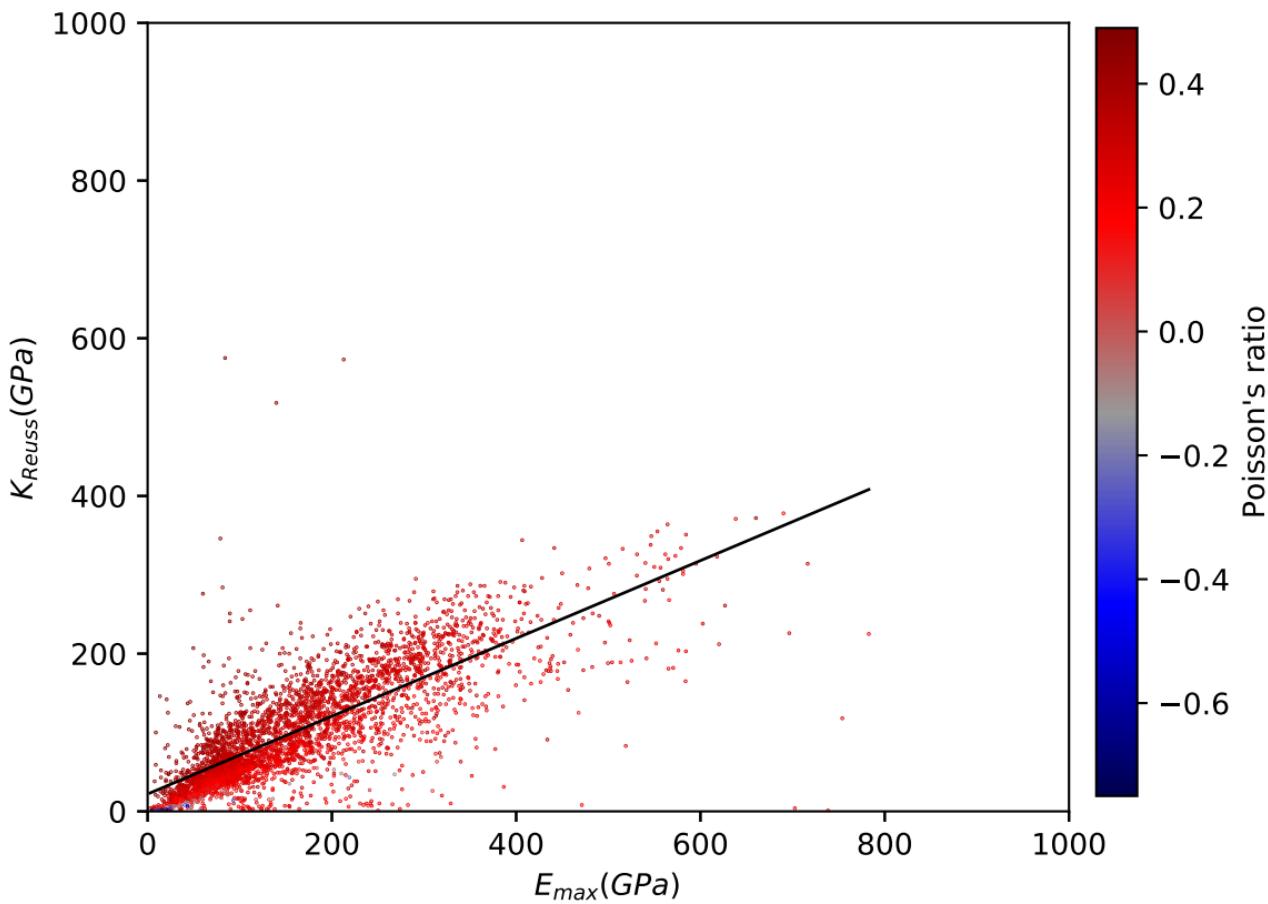


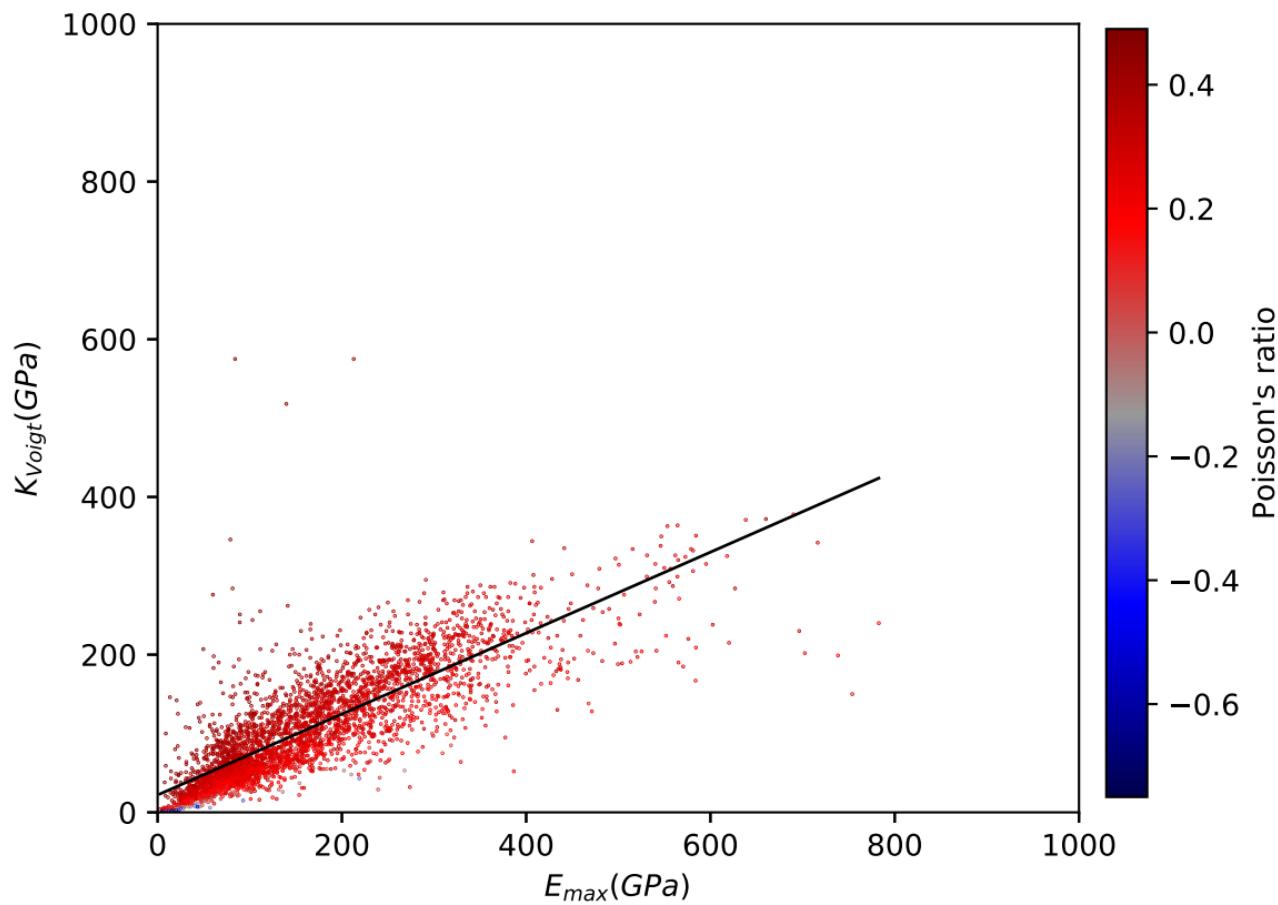


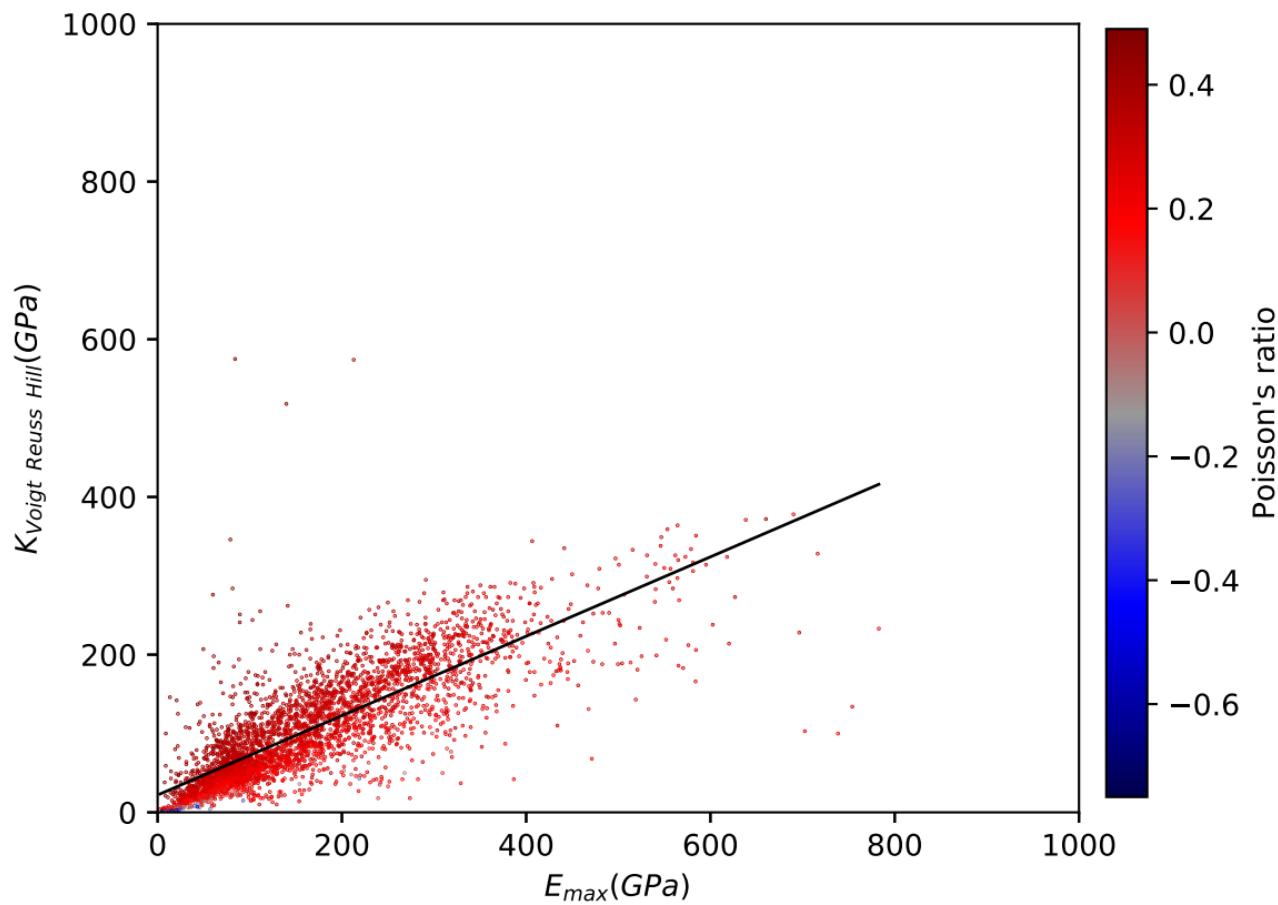


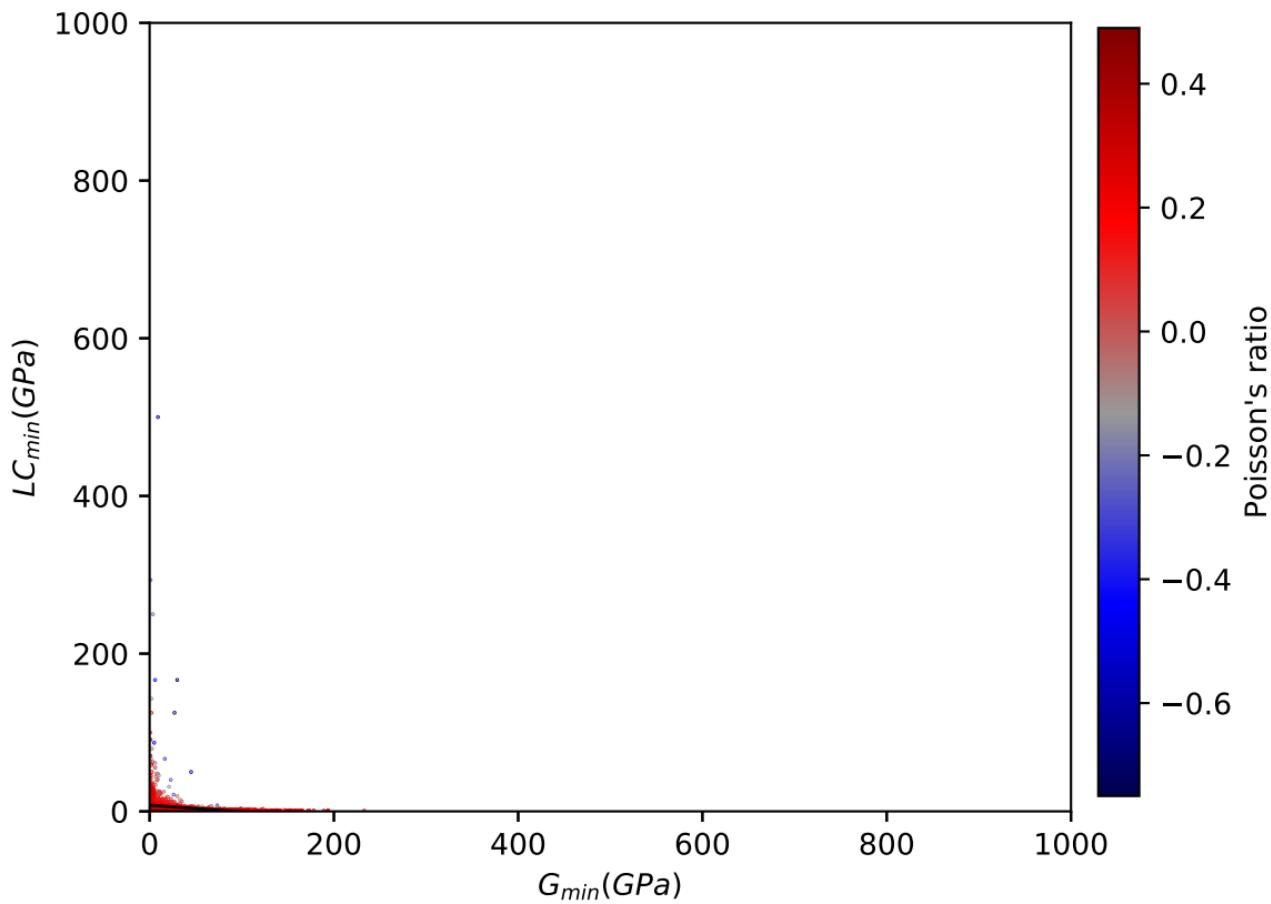


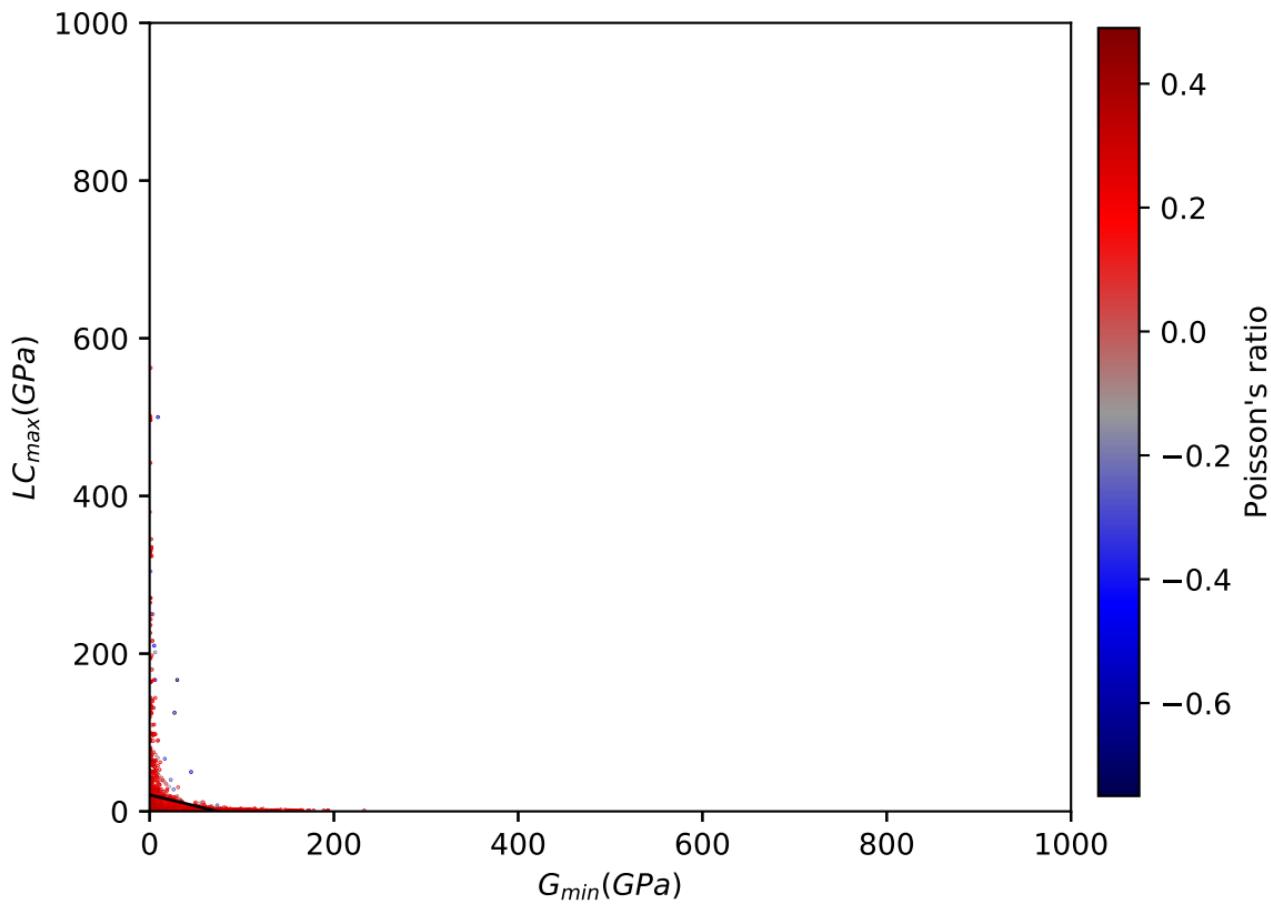
$G_{\text{Voigt Reuss Hill}}(\text{GPa})$ 

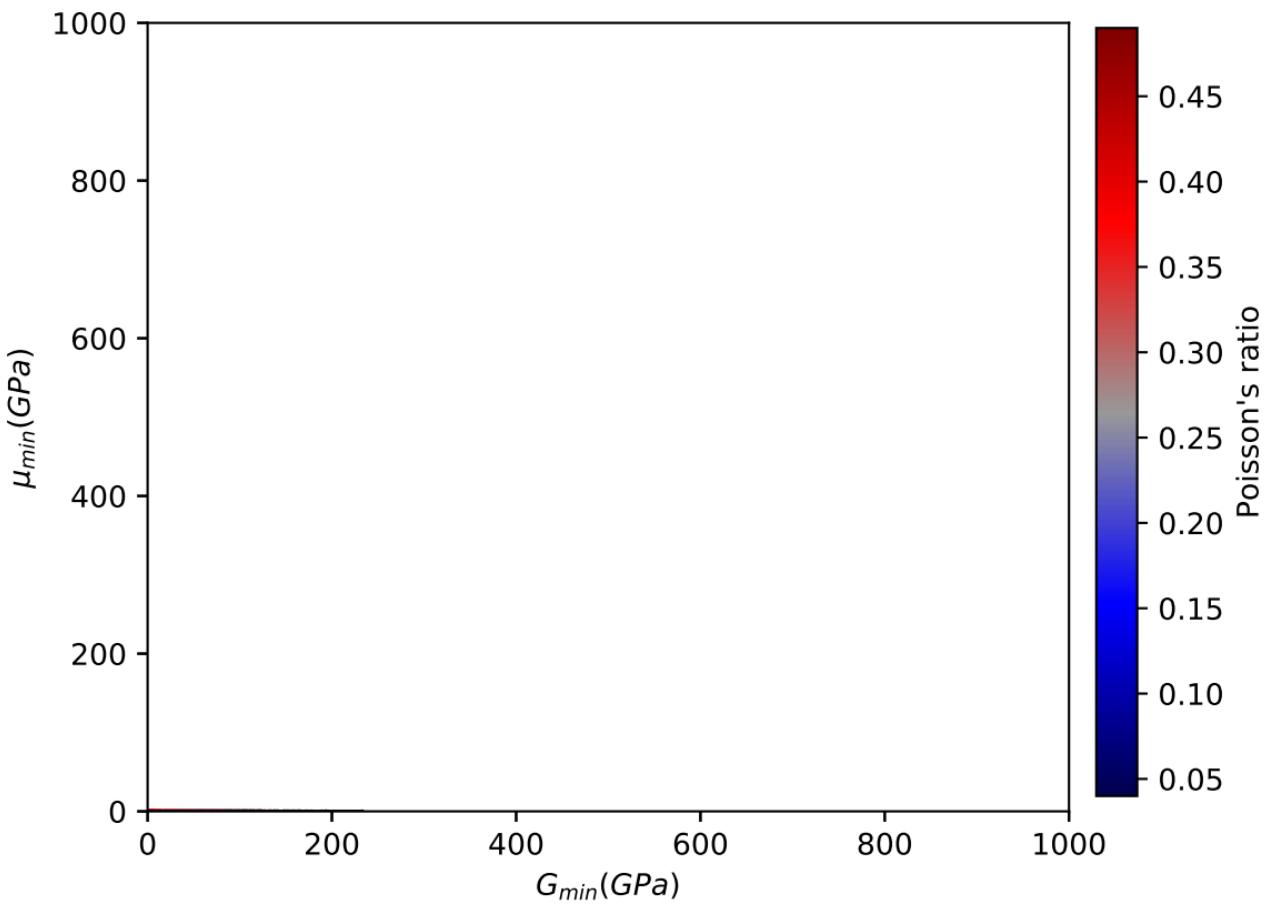


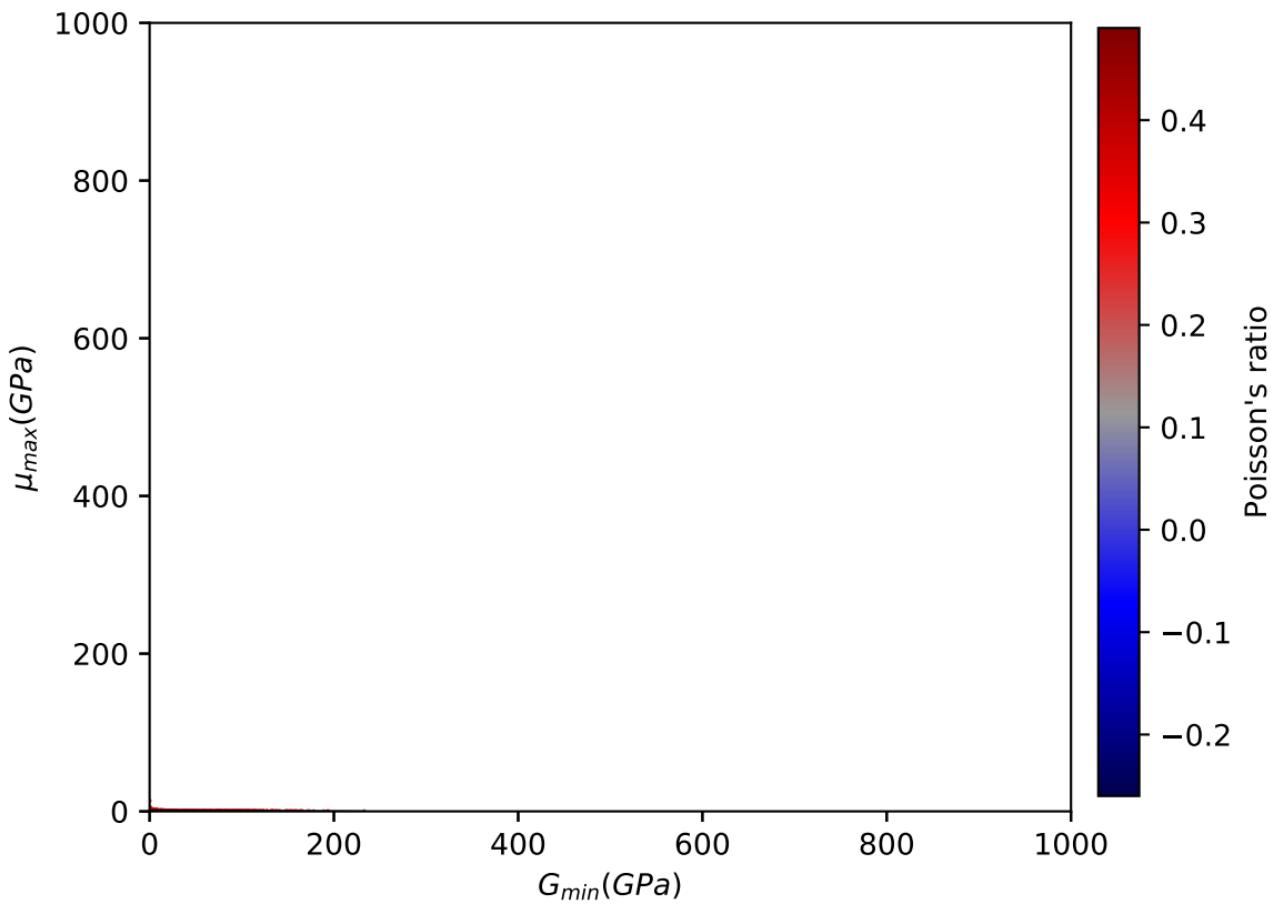


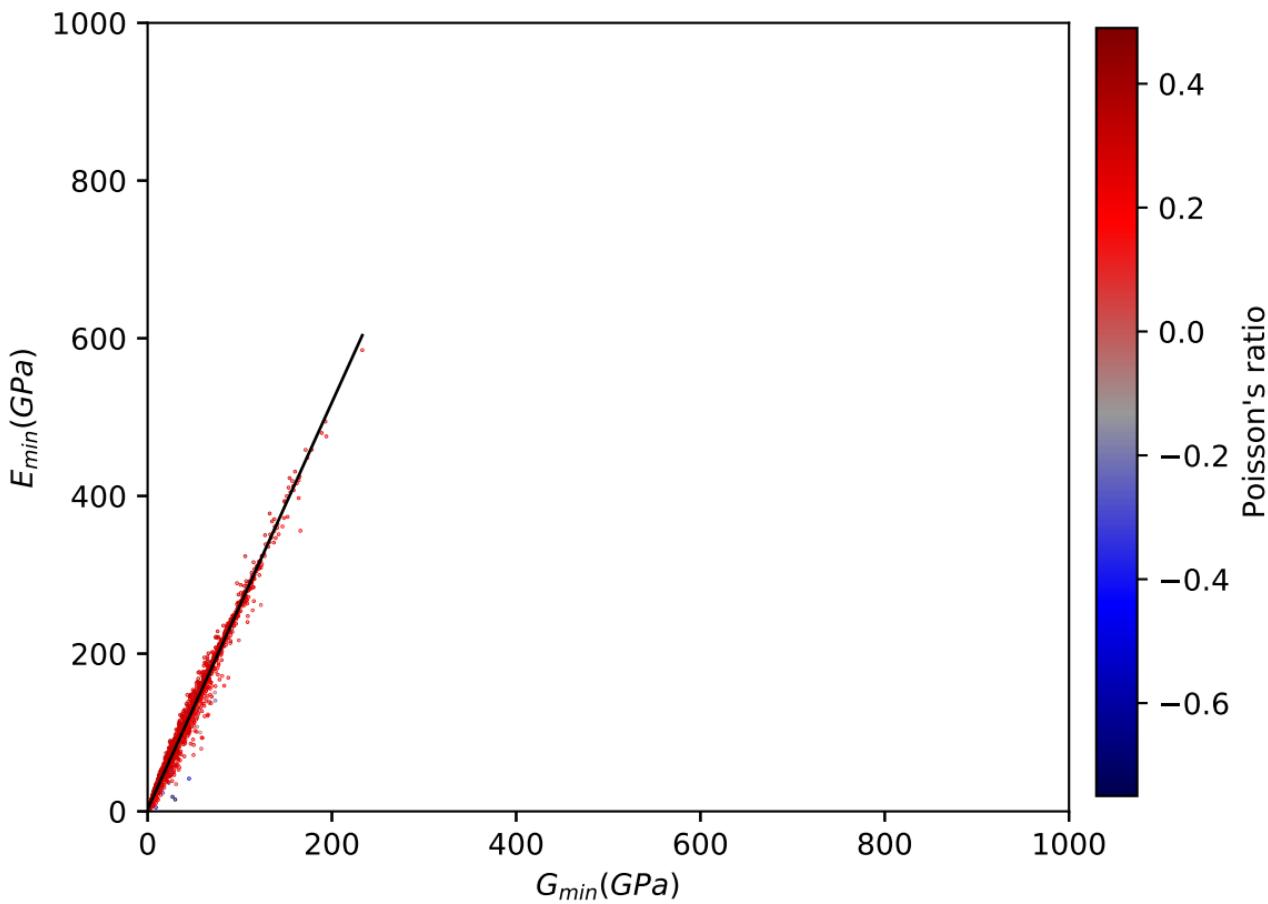


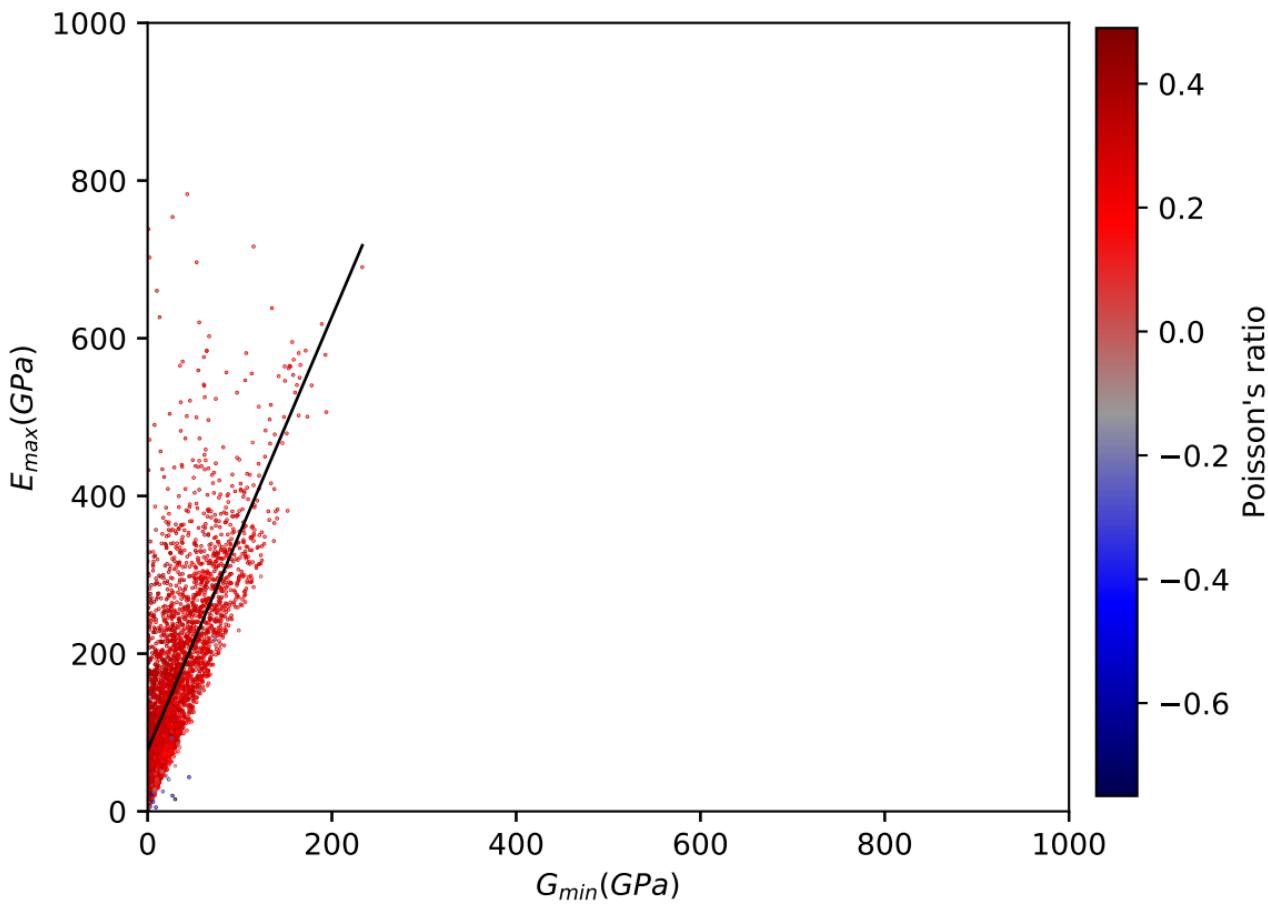


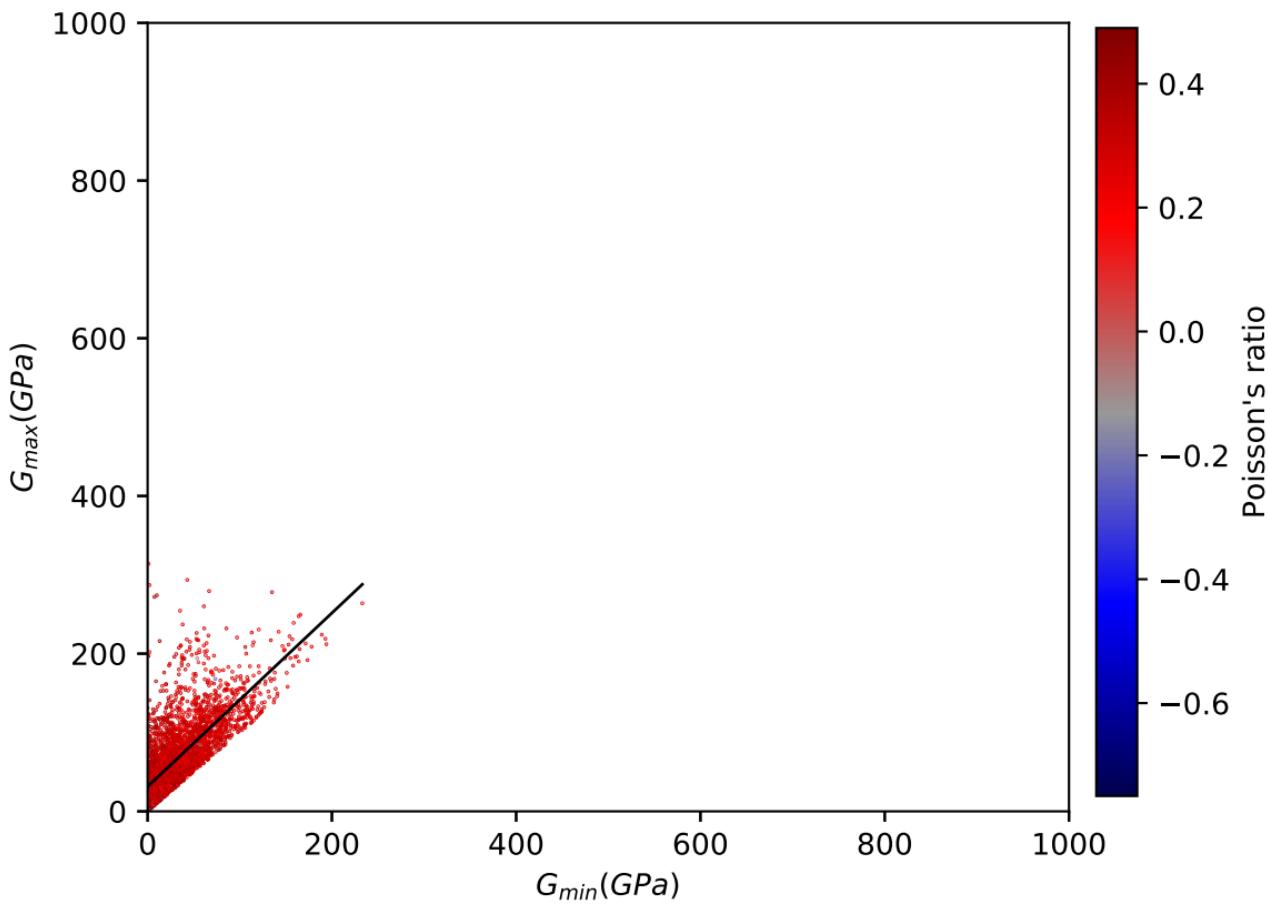


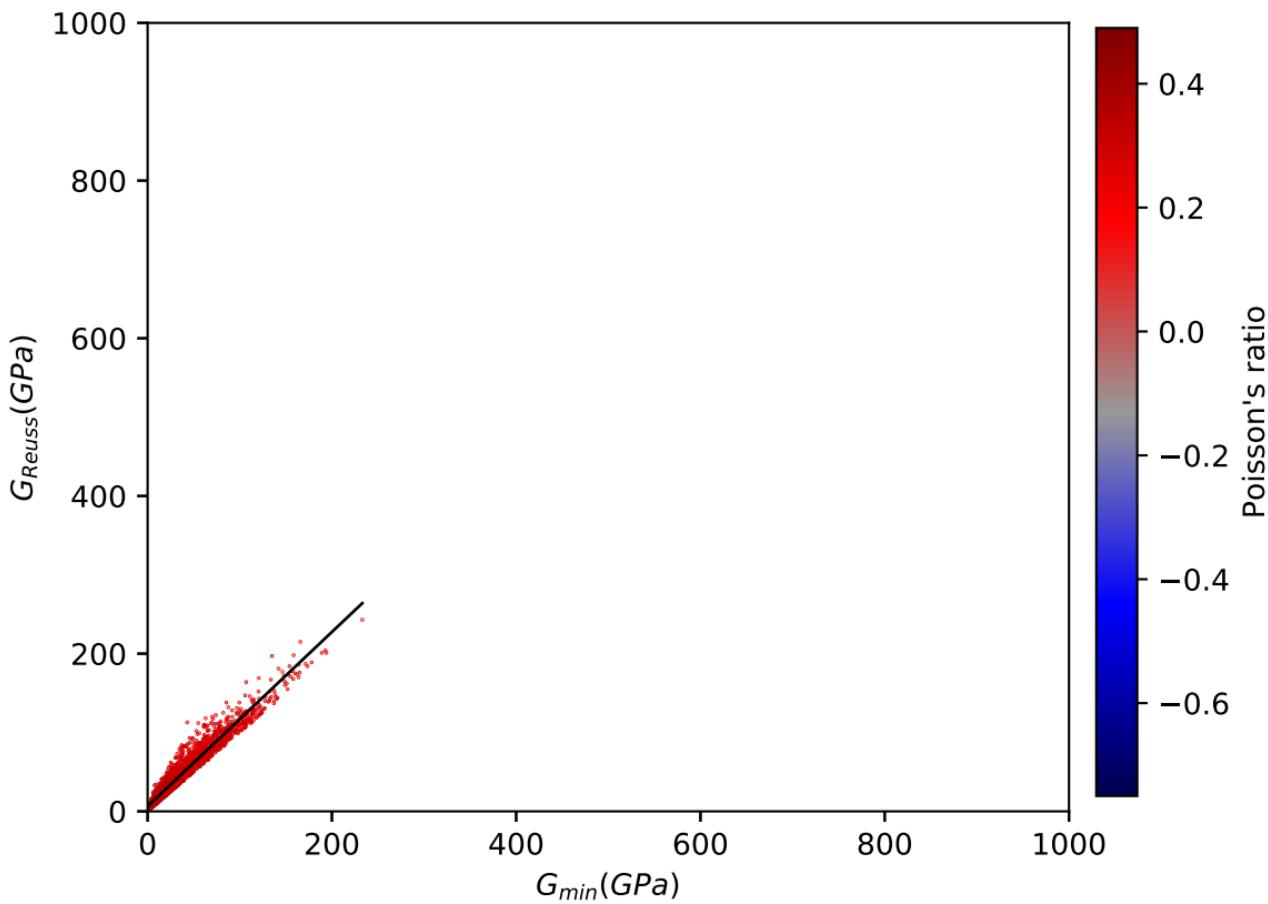












$G_{Vogt}(GPa)$ 

1000

800

600

400

200

0

 $G_{min}(GPa)$ 

0.4  
0.2  
0.0  
-0.2  
-0.4  
-0.6

Poisson's ratio

$G_{\text{Voigt Reuss Hill}}(\text{GPa})$

1000

800

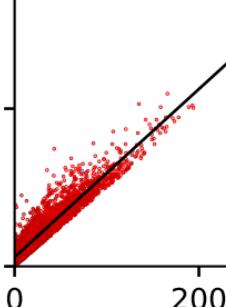
600

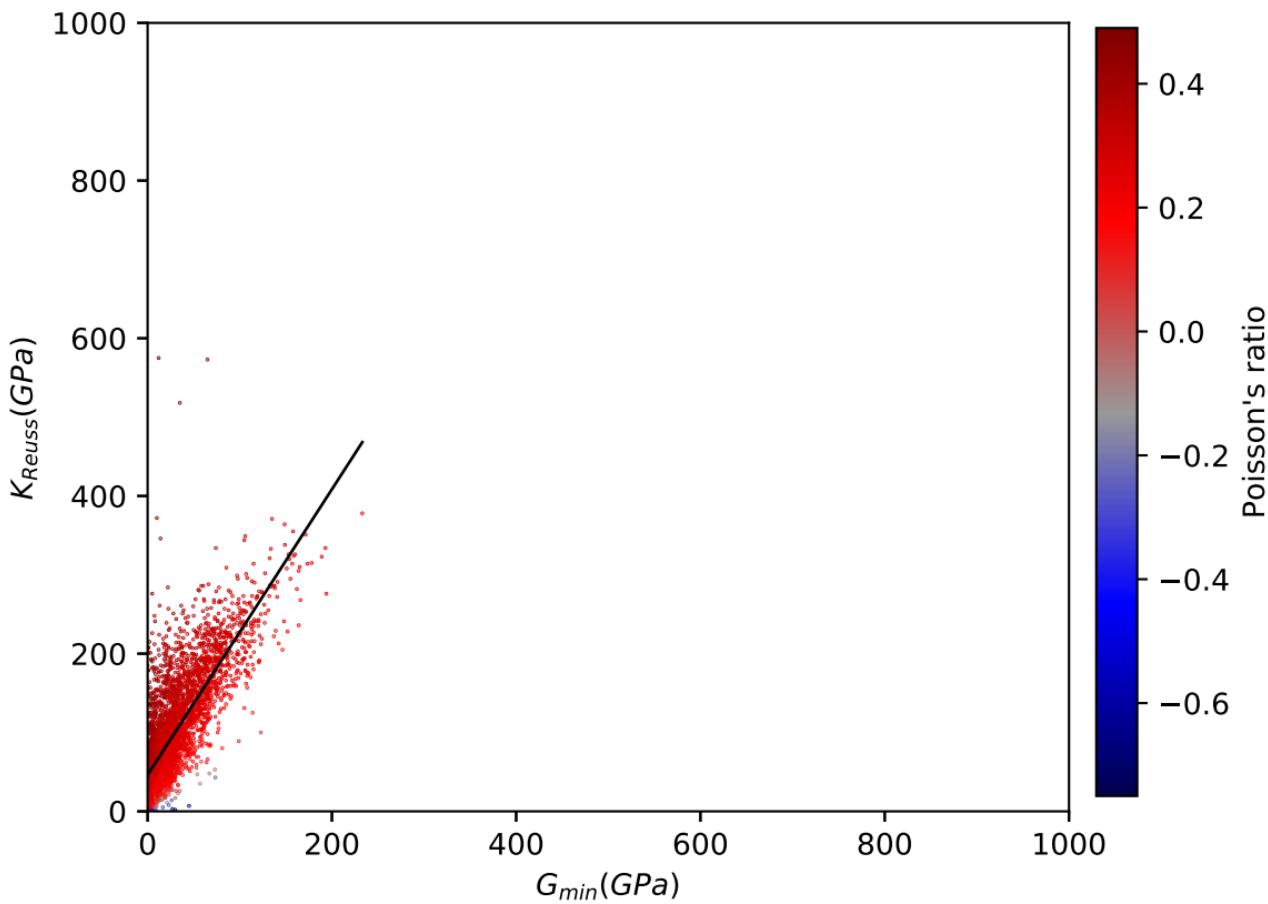
400

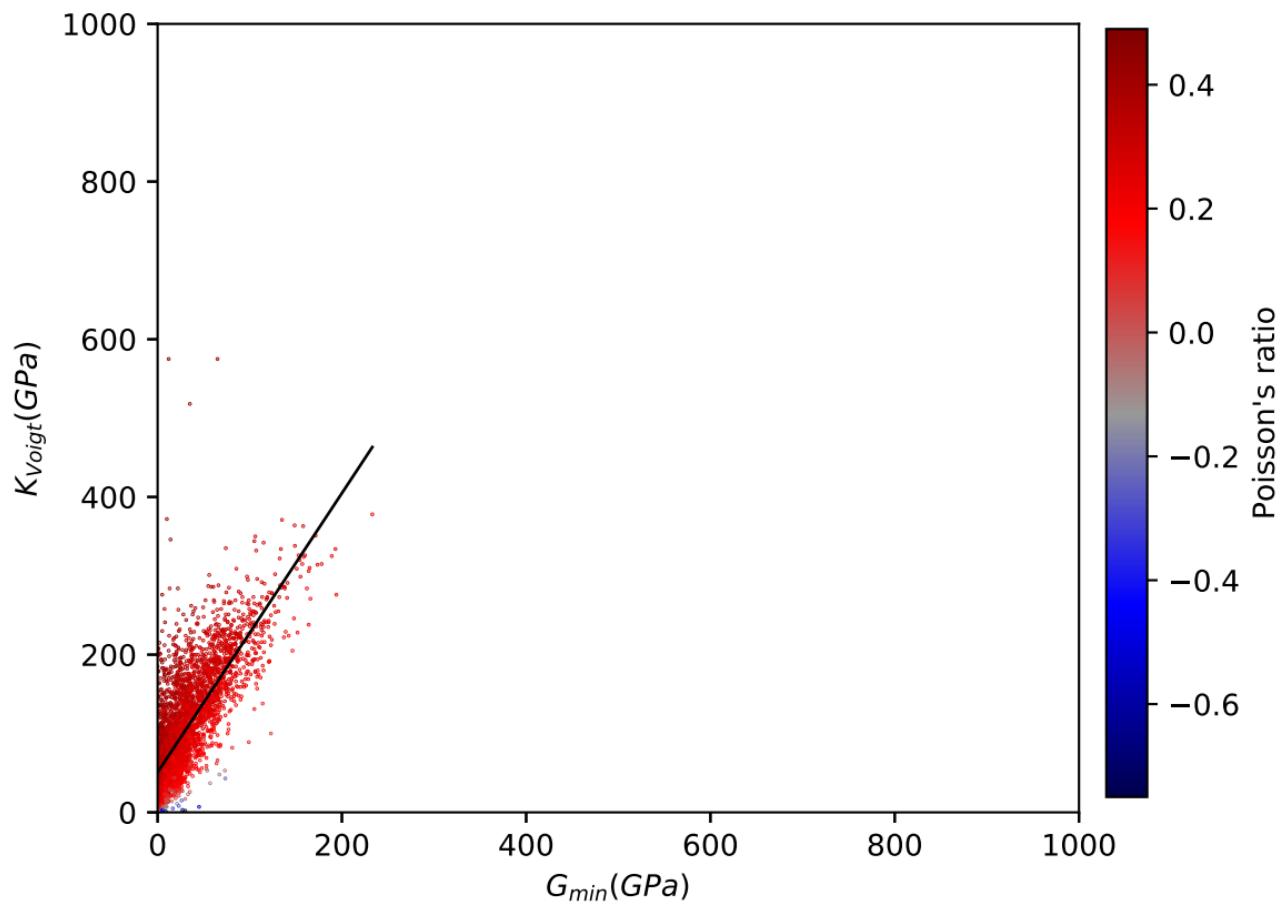
200

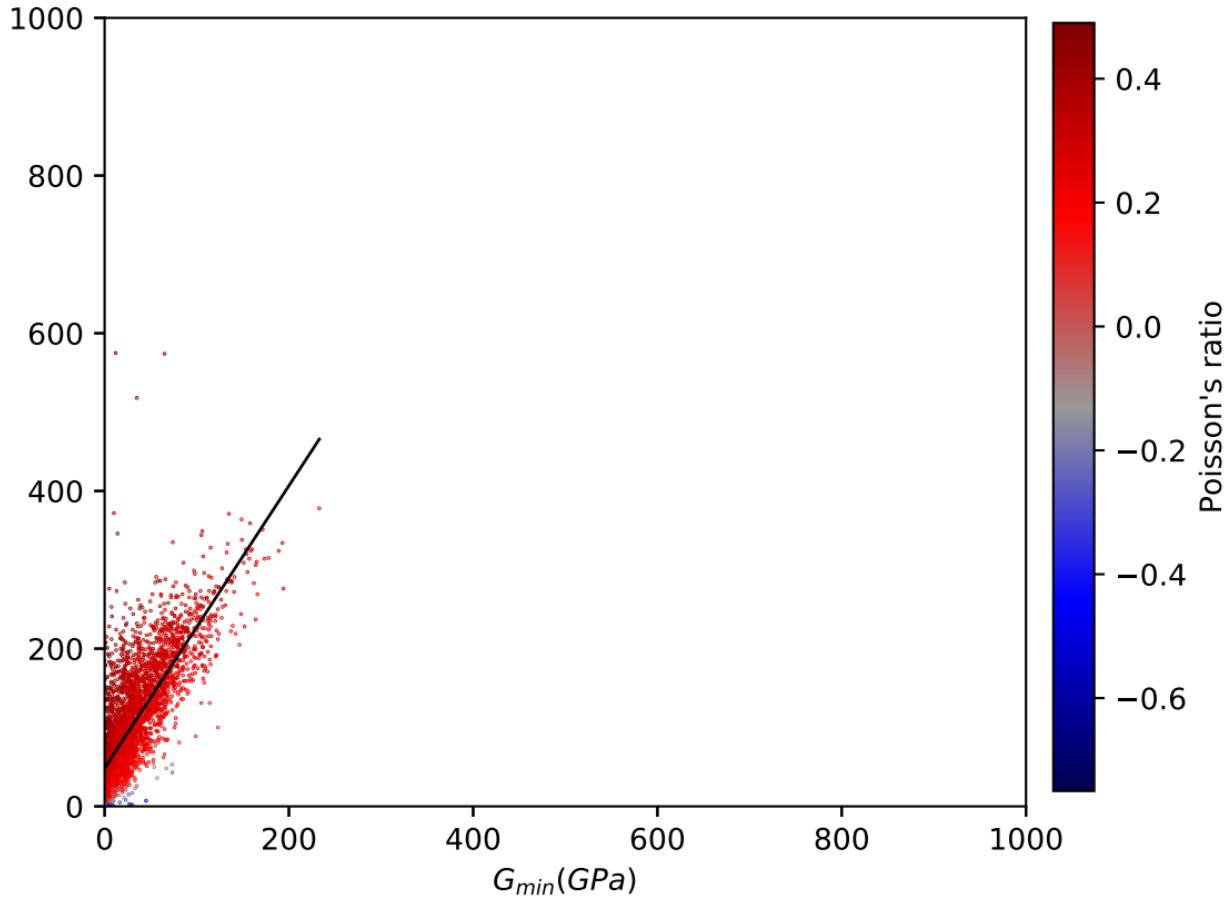
0

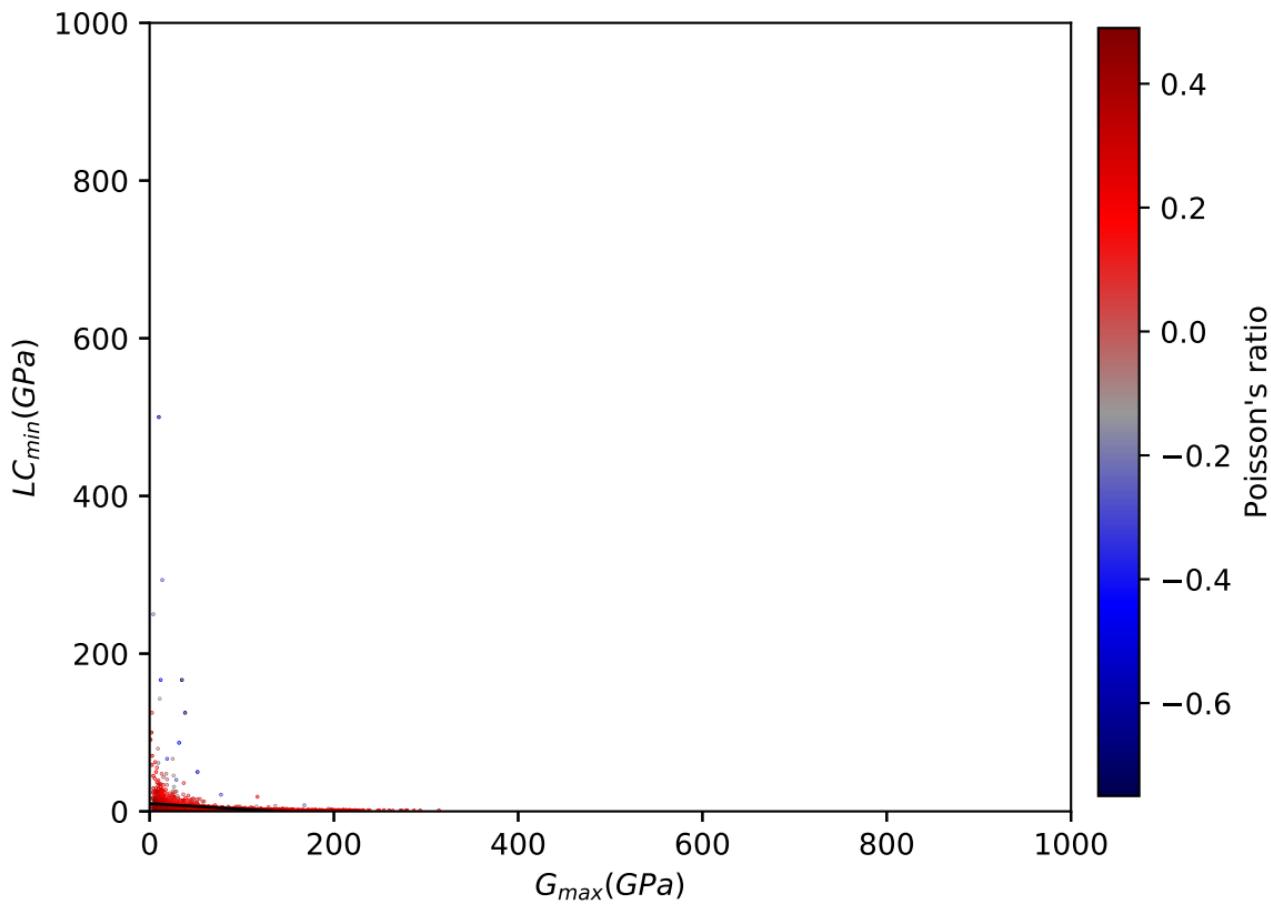
$G_{\min}(\text{GPa})$

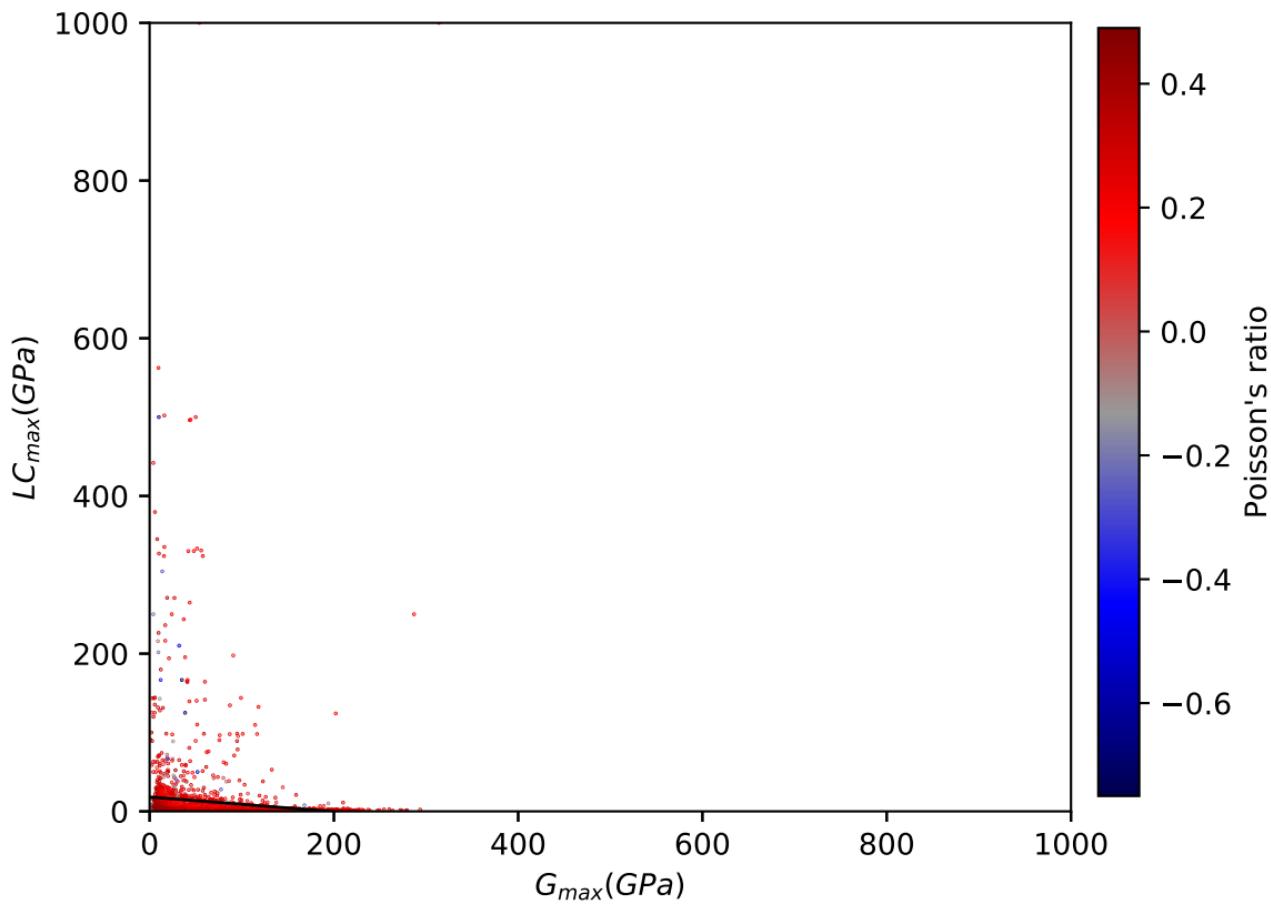


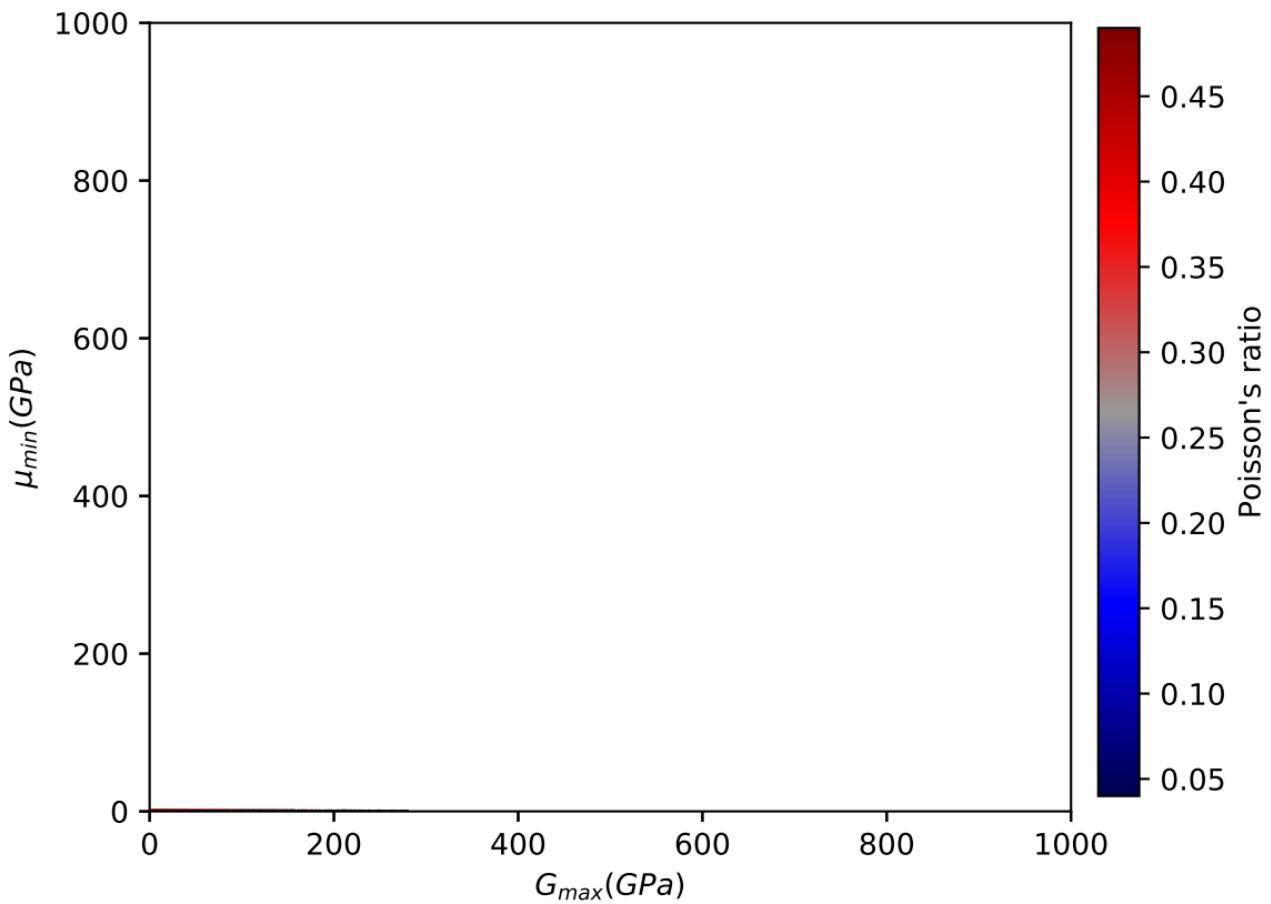


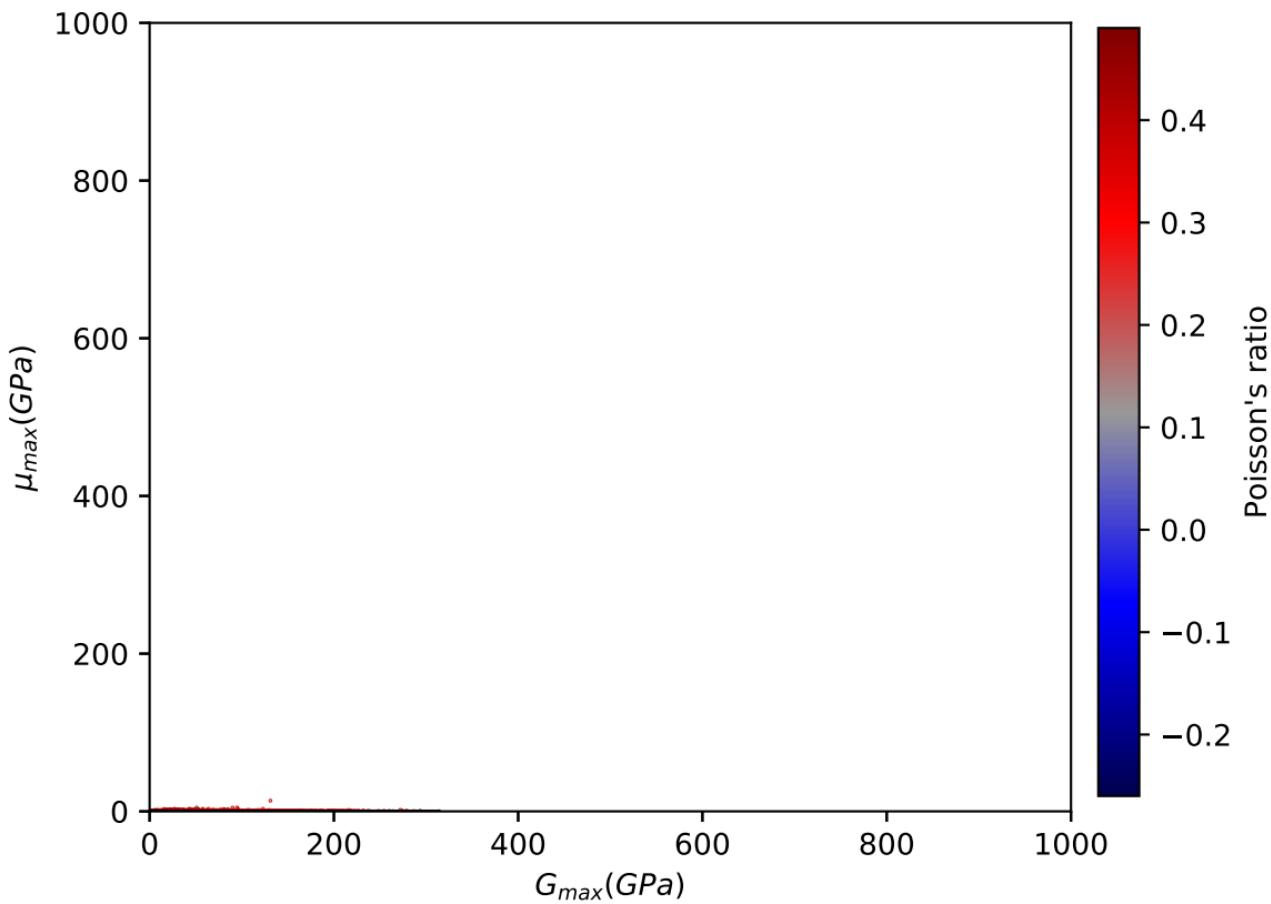


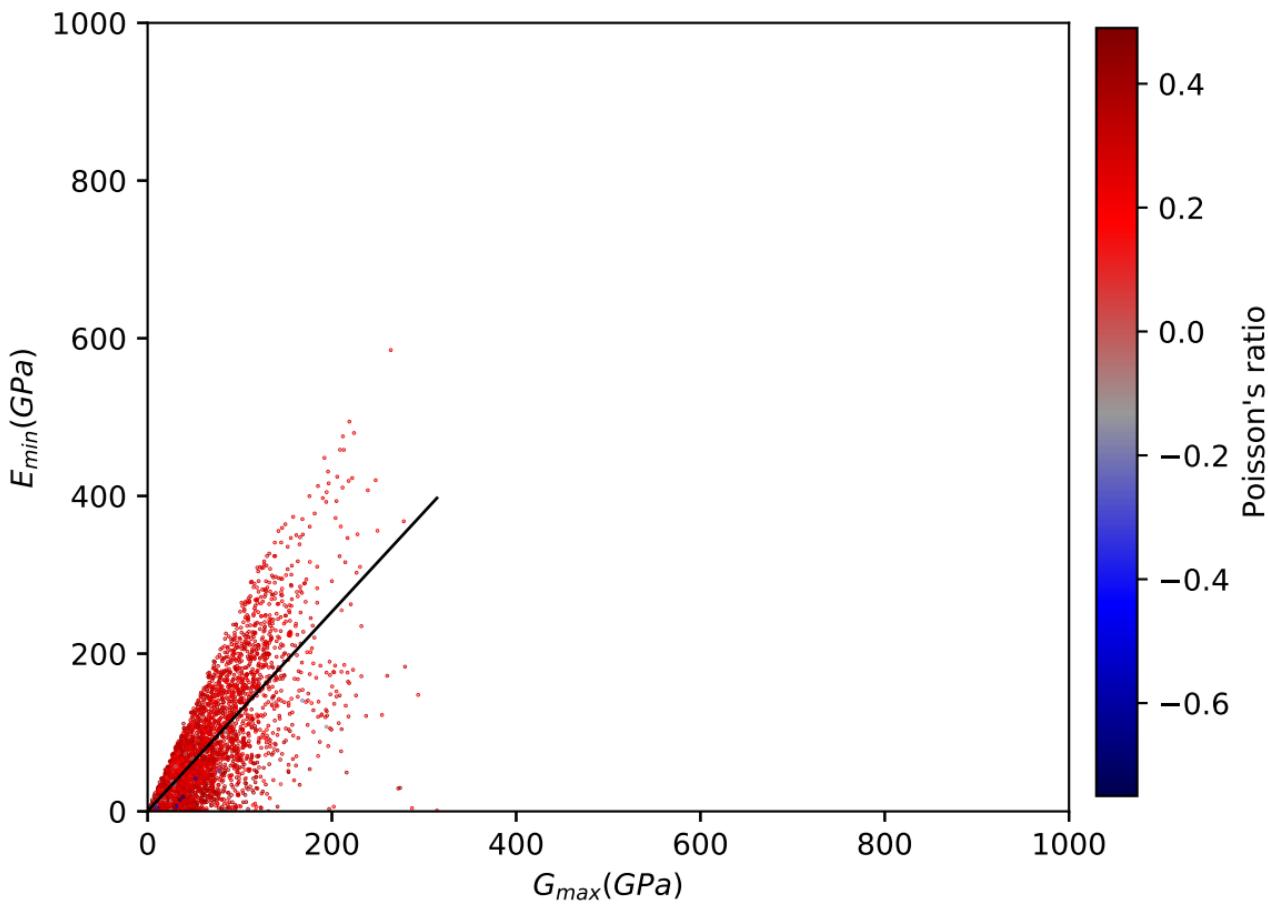
$K_{\text{Voigt Reuss Hill}}(\text{GPa})$ 

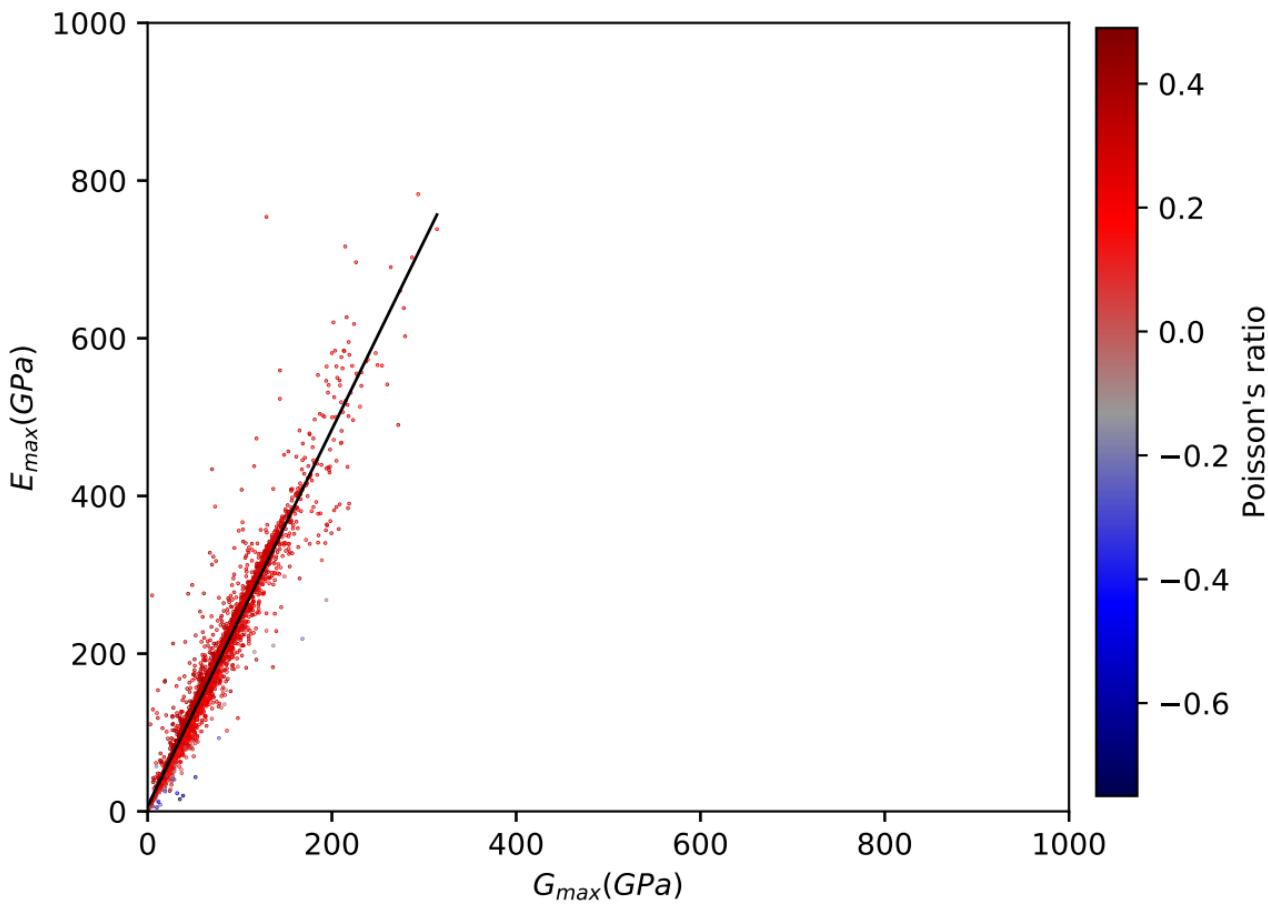


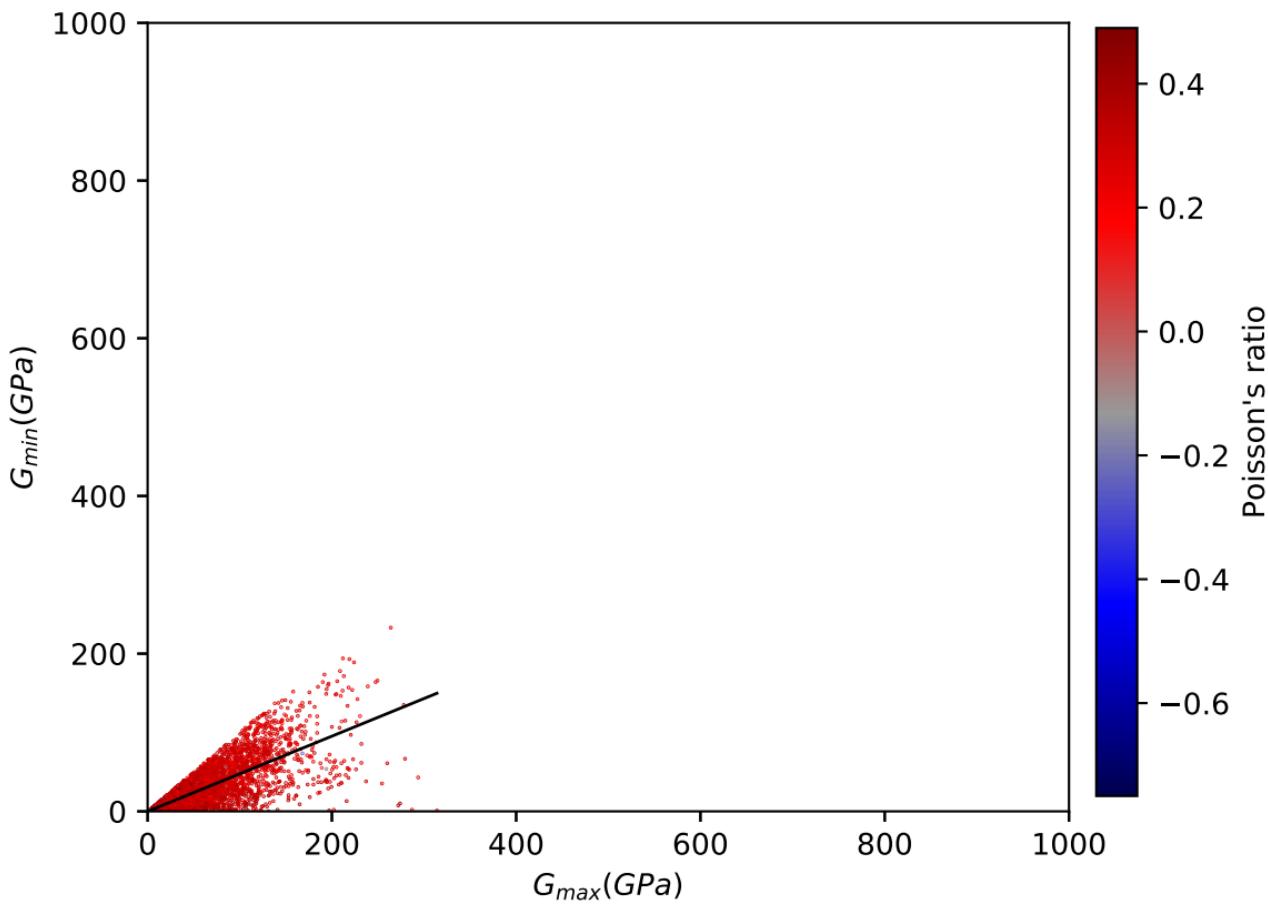


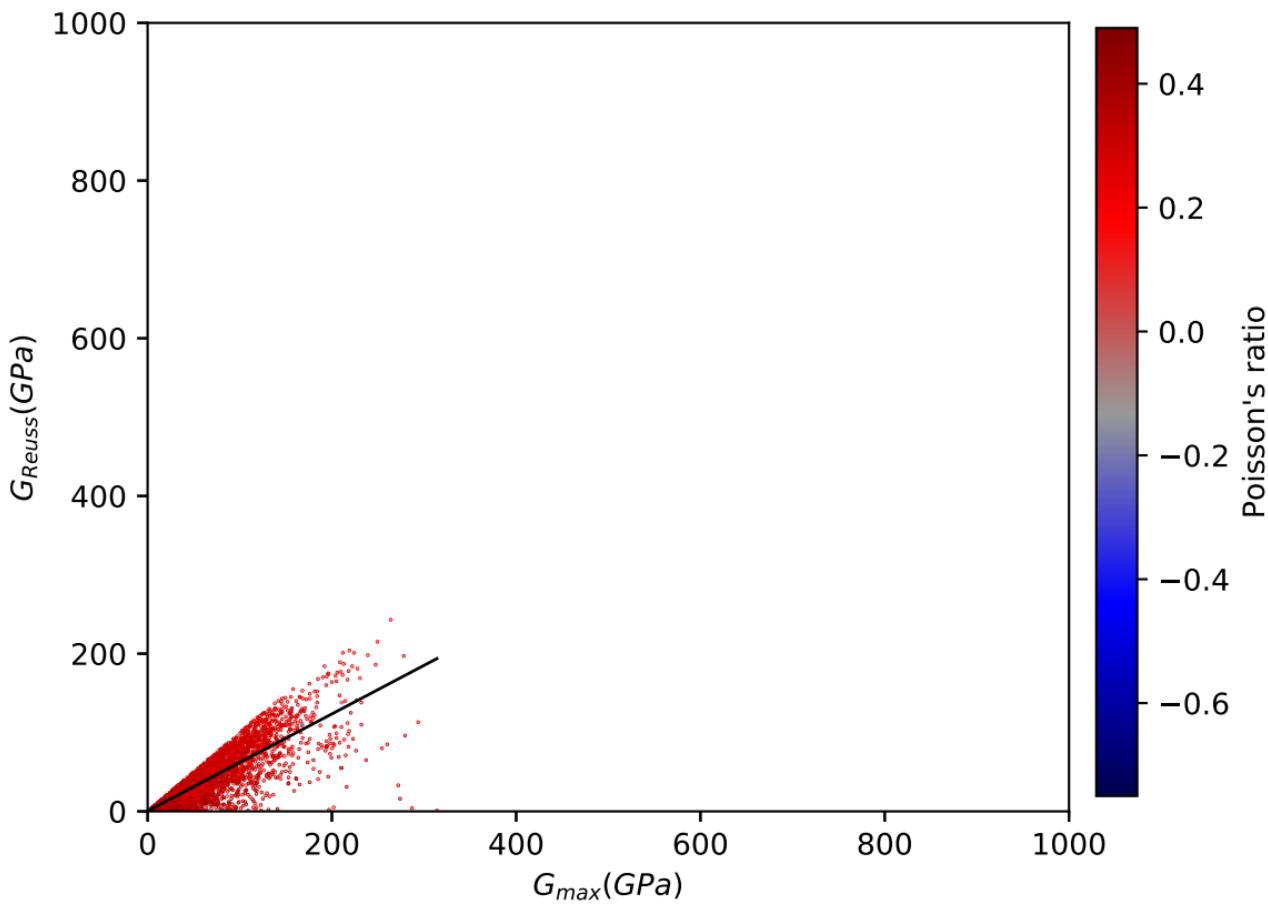












$G_{Vogt}(GPa)$ 

1000

800

600

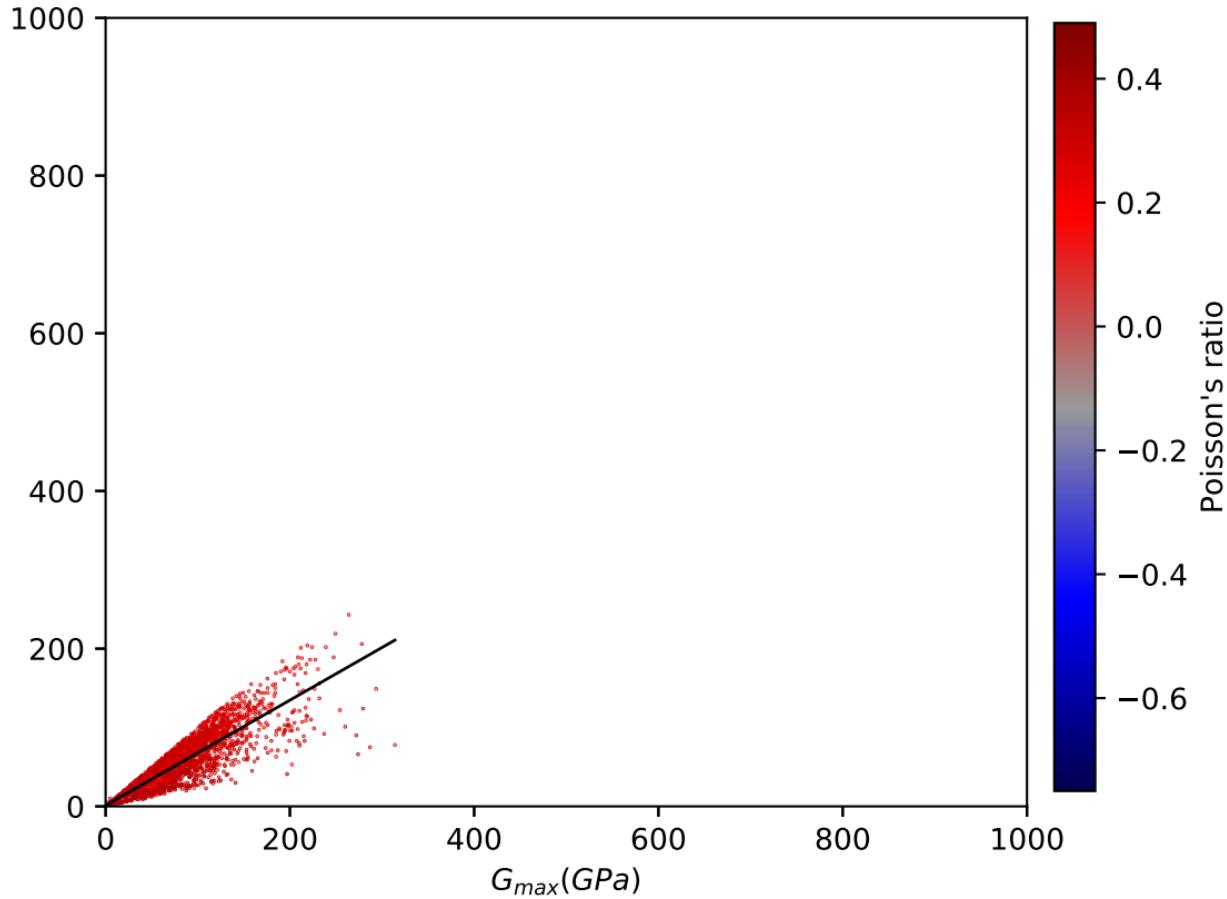
400

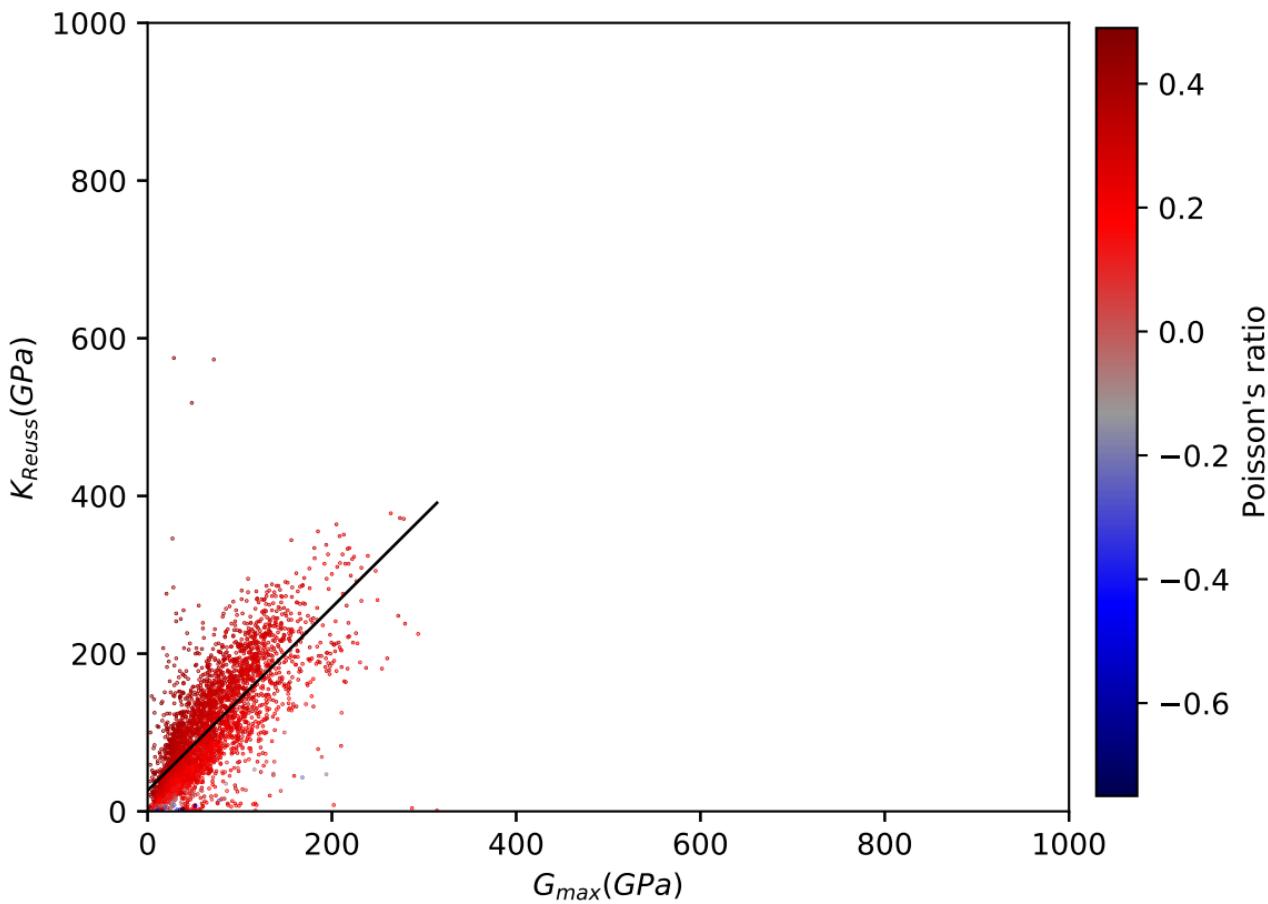
200

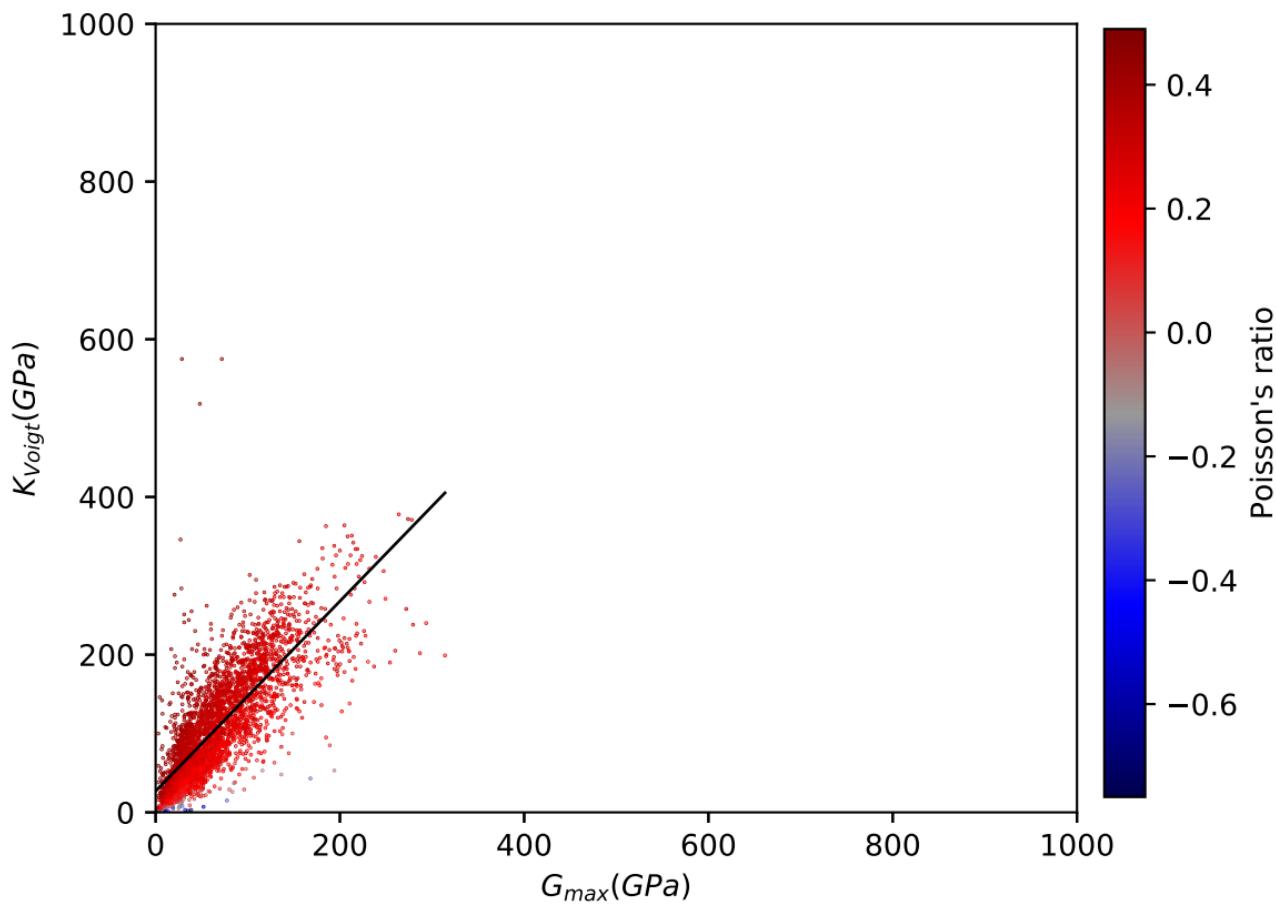
0

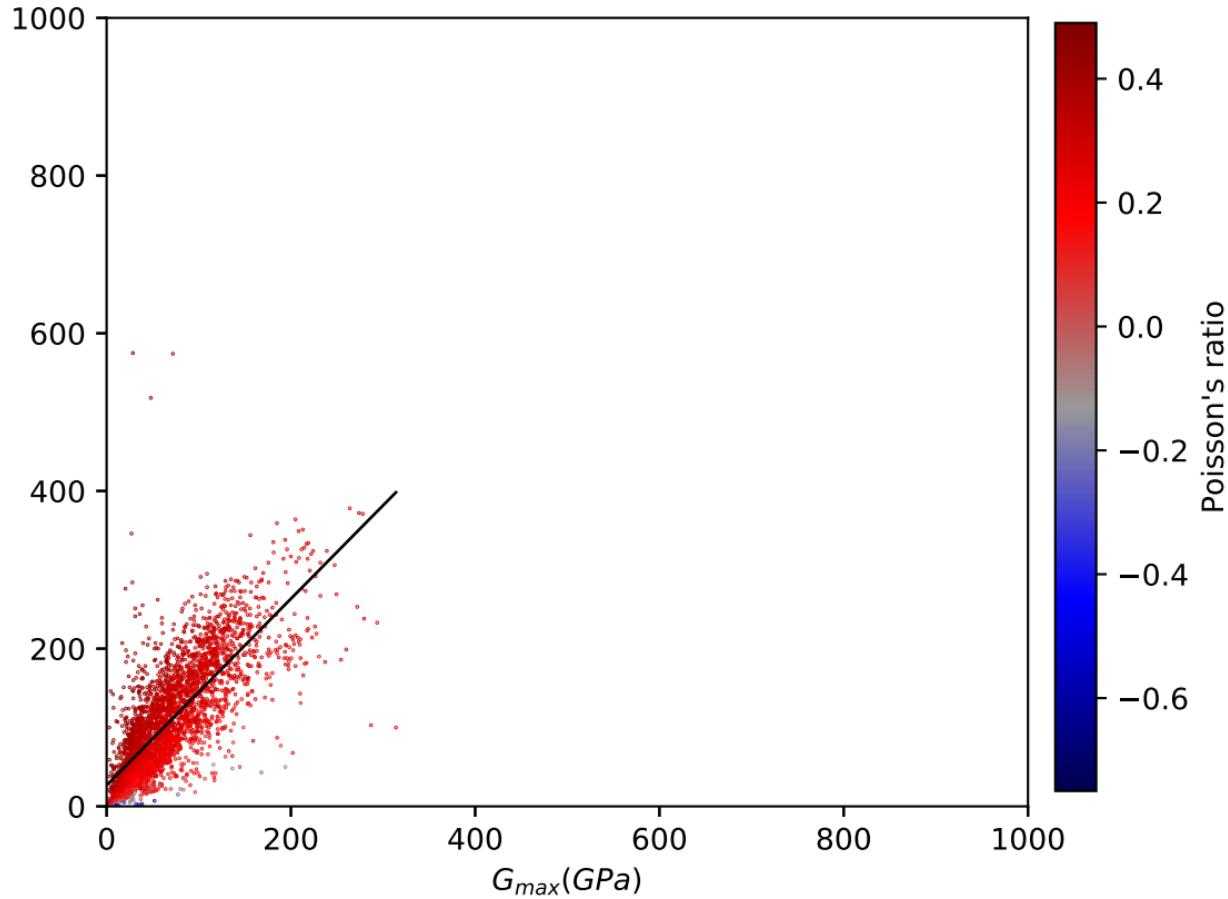
 $G_{max}(GPa)$ 

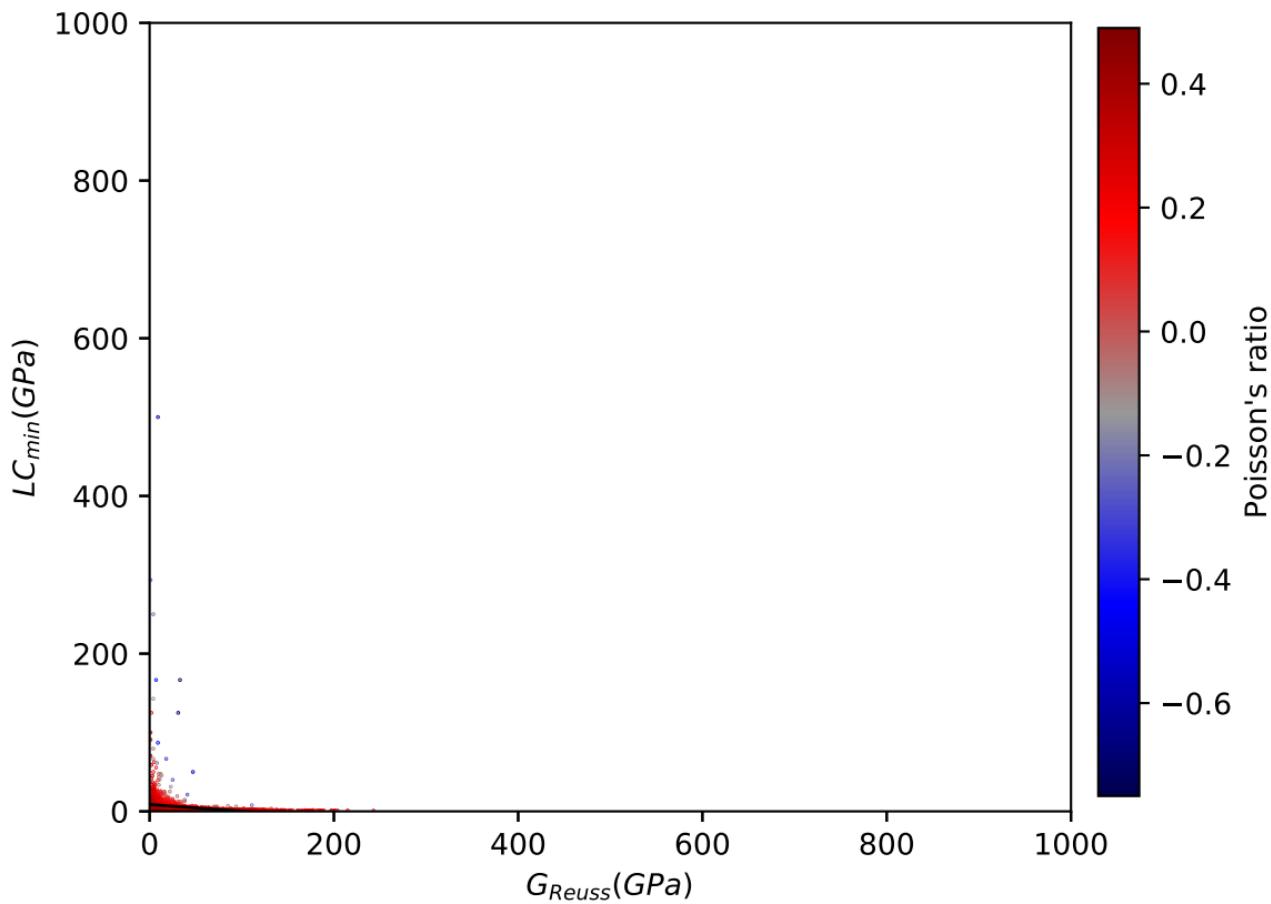
0.4  
0.2  
0.0  
-0.2  
-0.4  
-0.6

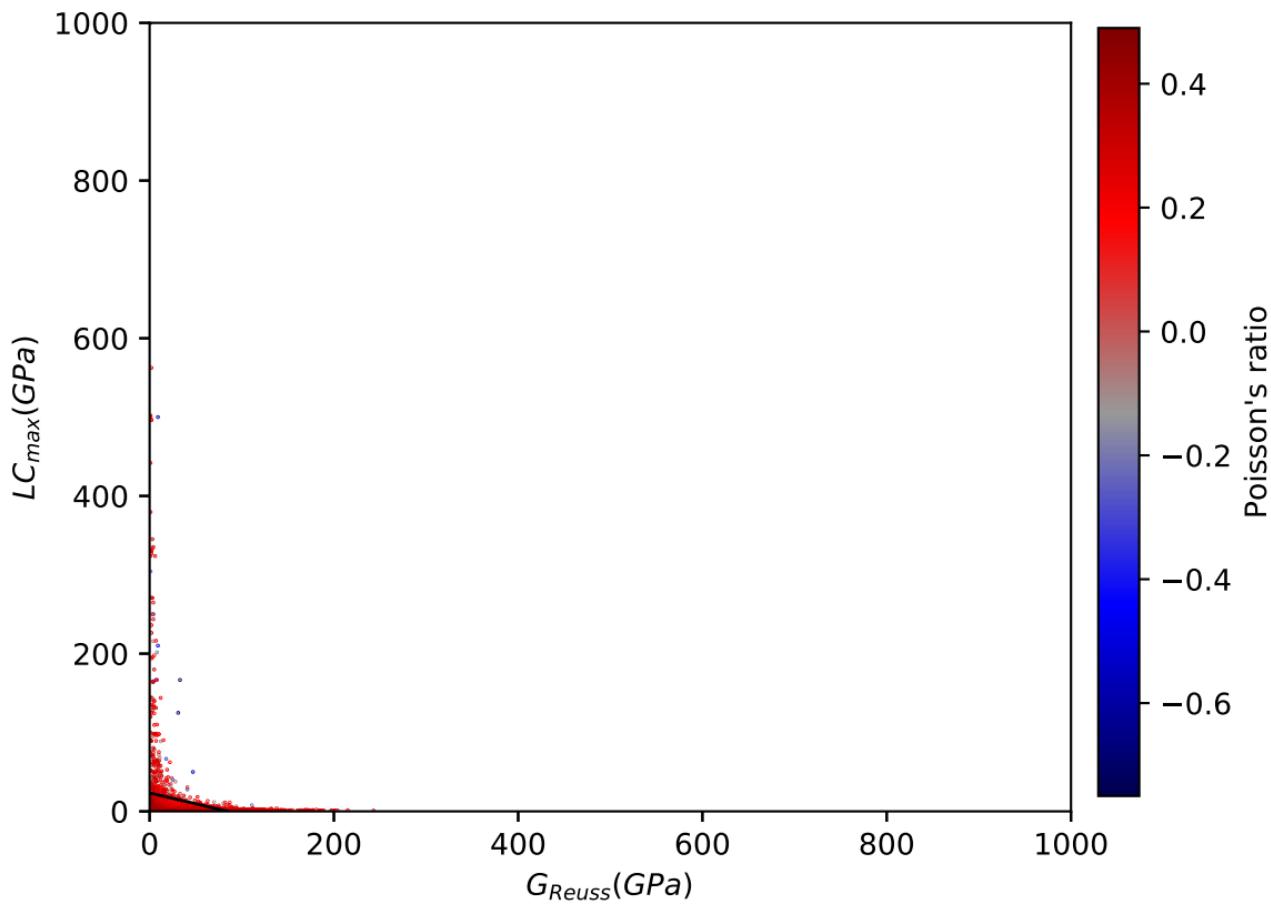
$G_{\text{voigt Reuss Hill}}(\text{GPa})$ 

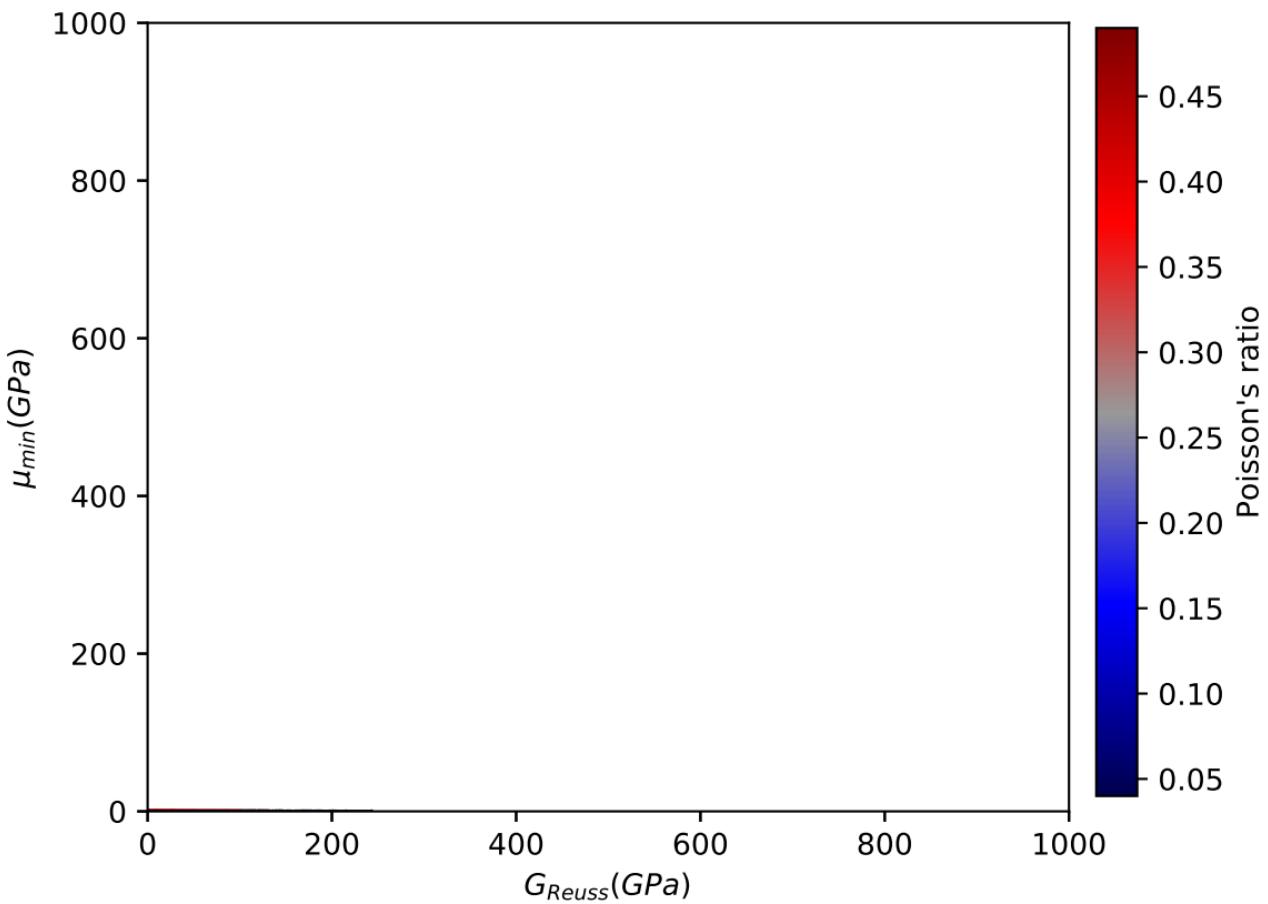


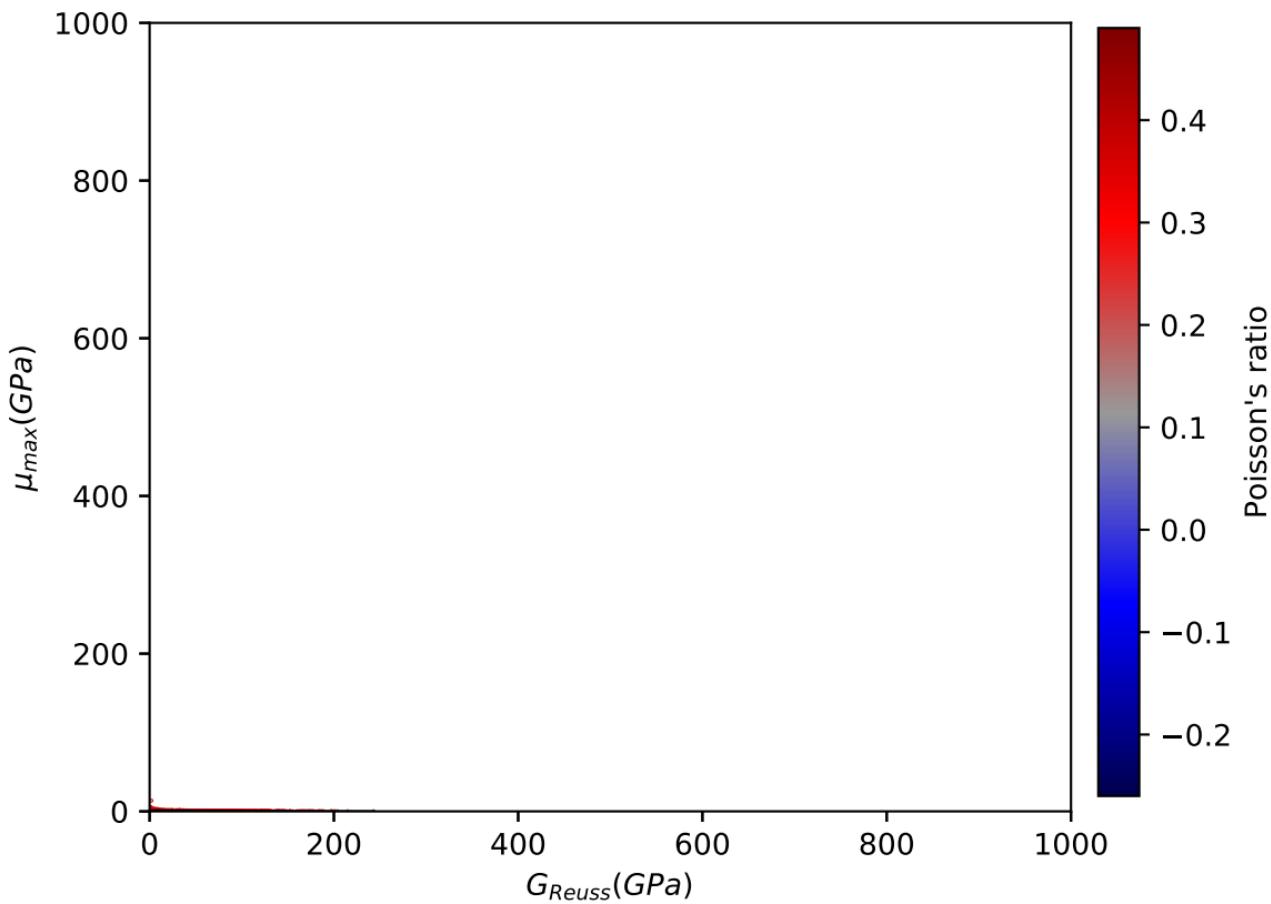


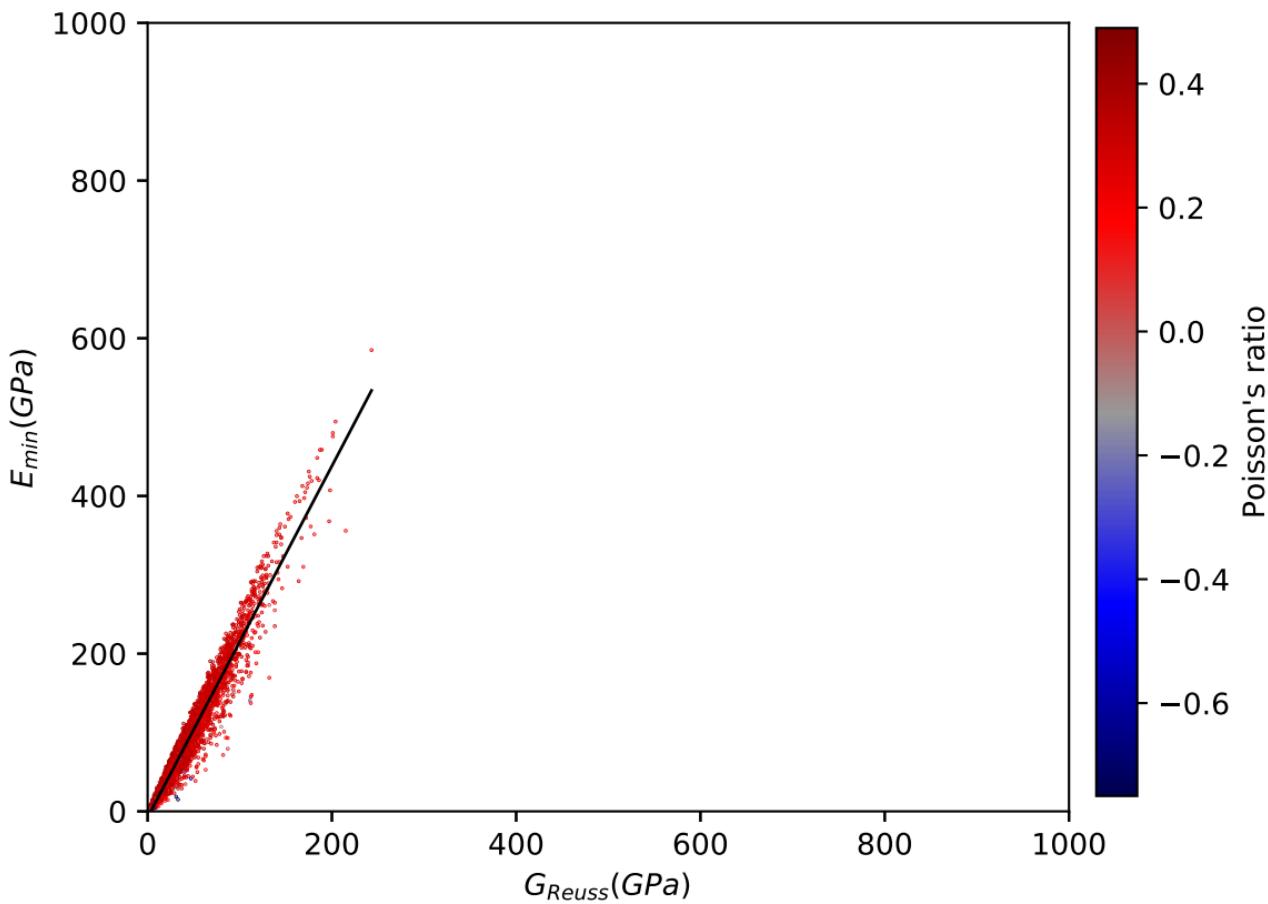
$K_{\text{Voigt Reuss Hill}}(\text{GPa})$ 

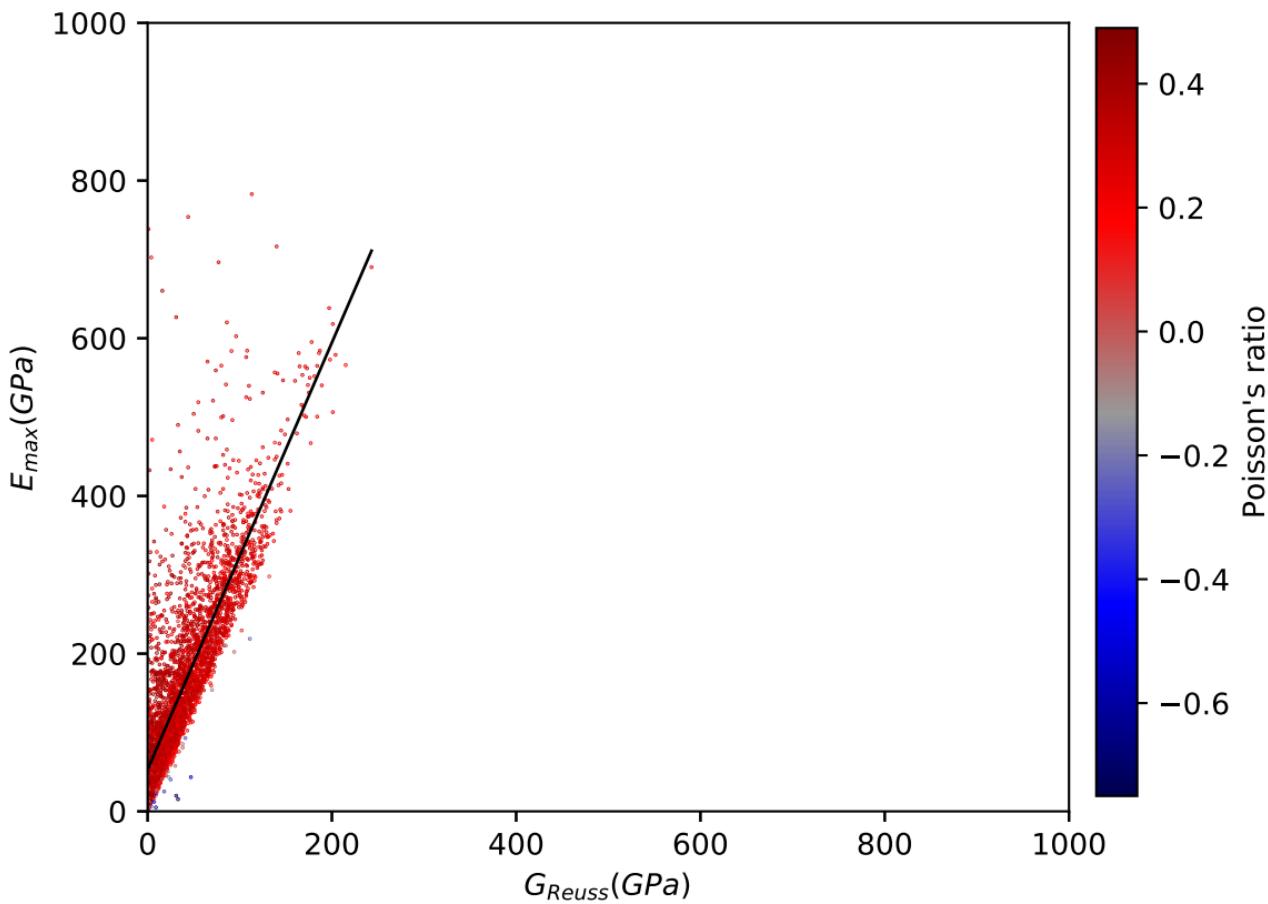


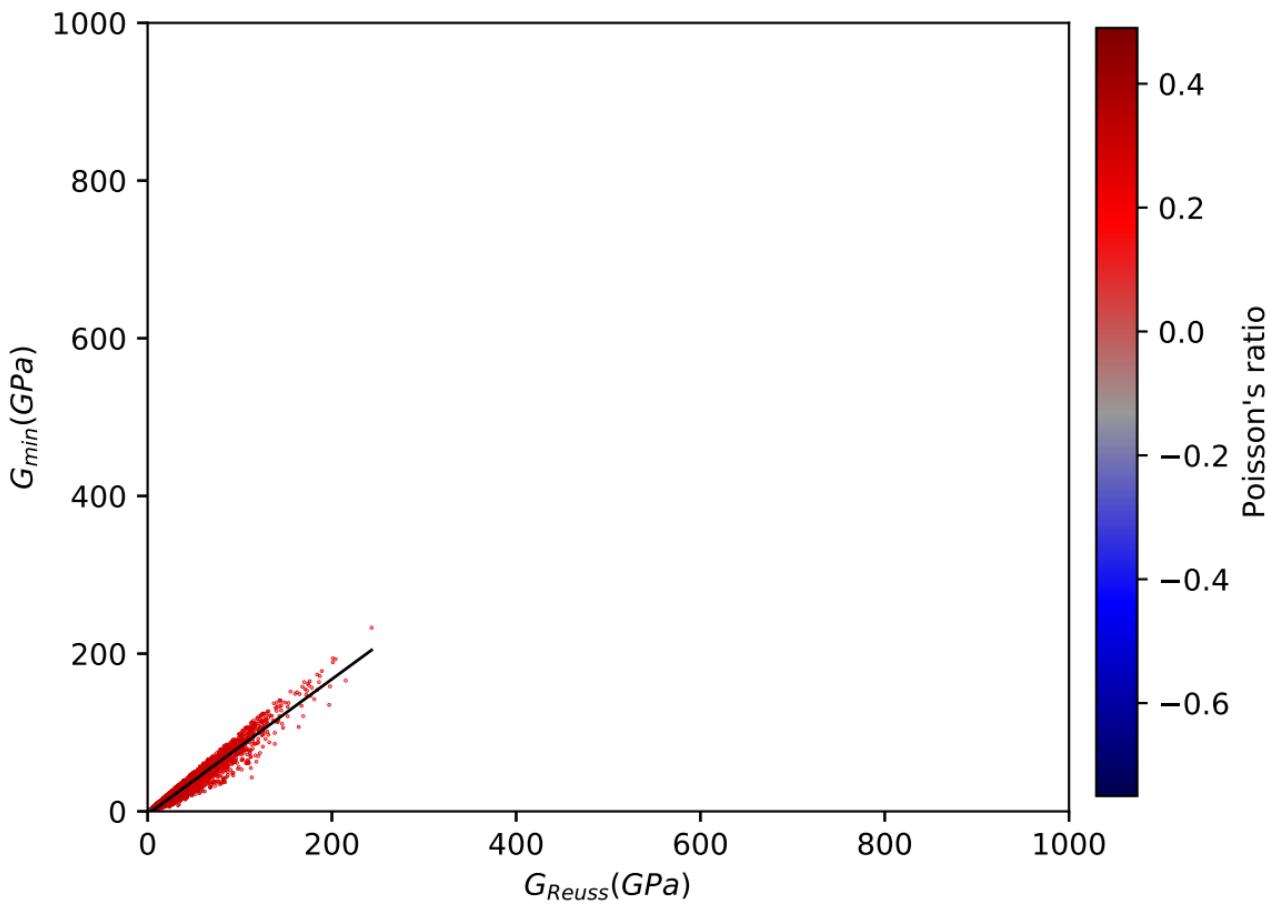


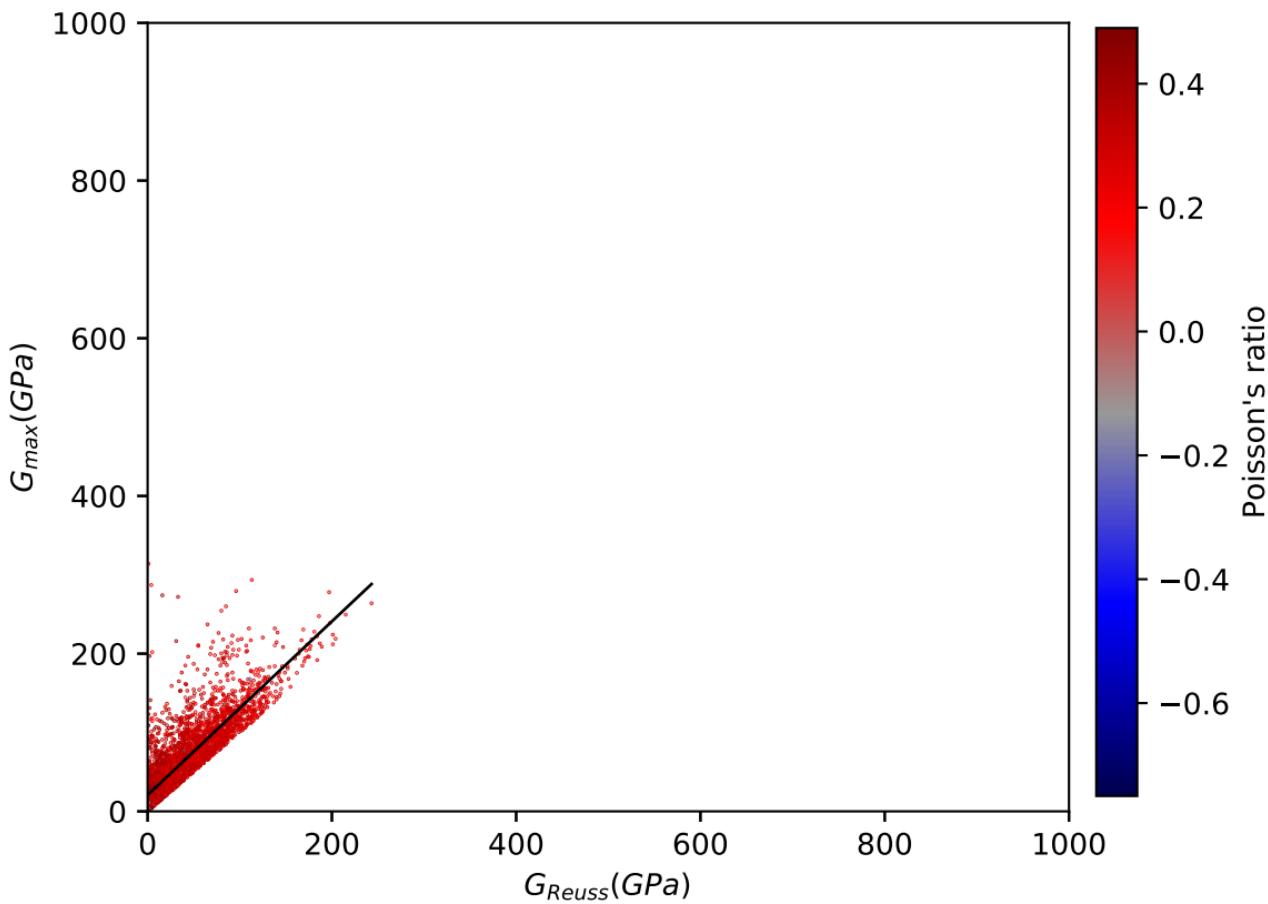












$G_{Vogt}(GPa)$ 

1000

800

600

400

200

0

200

400

600

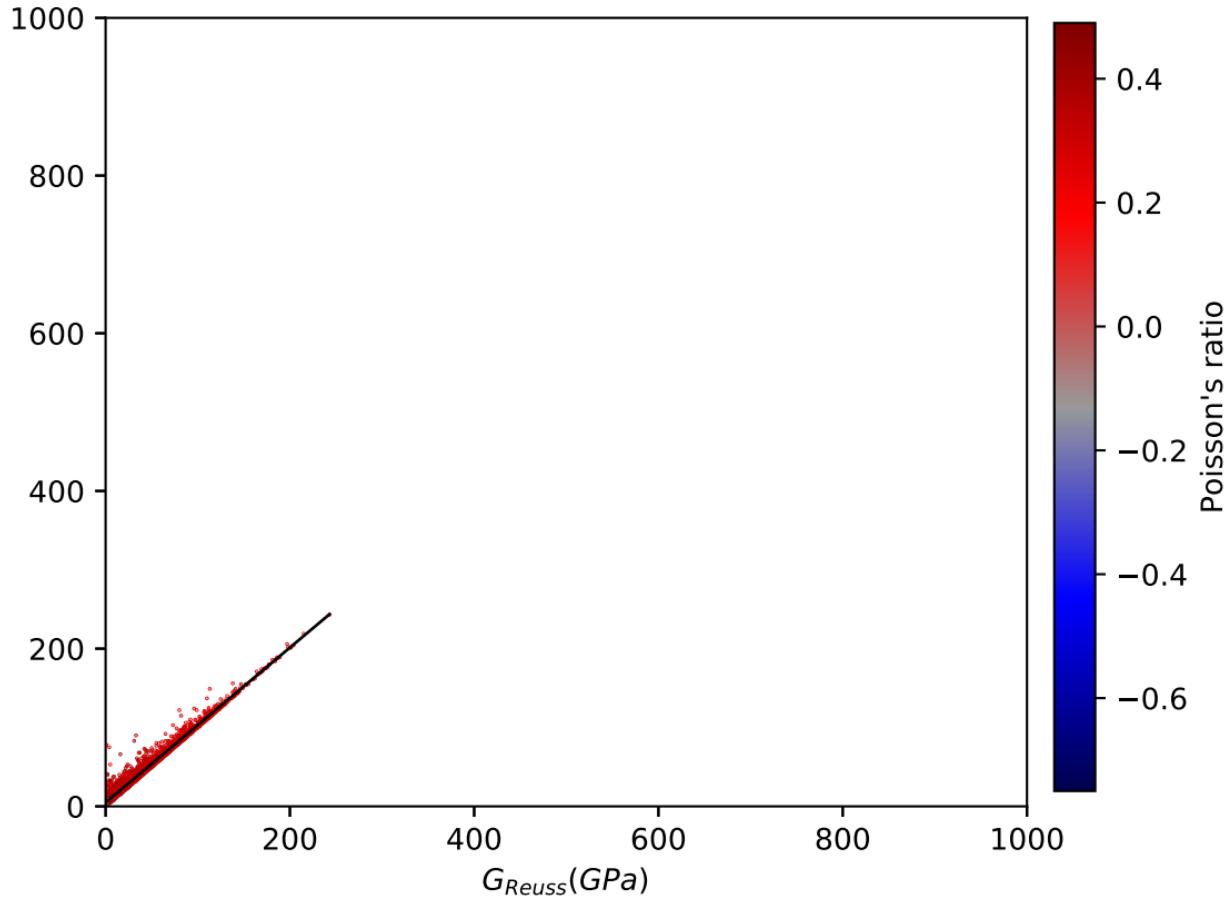
800

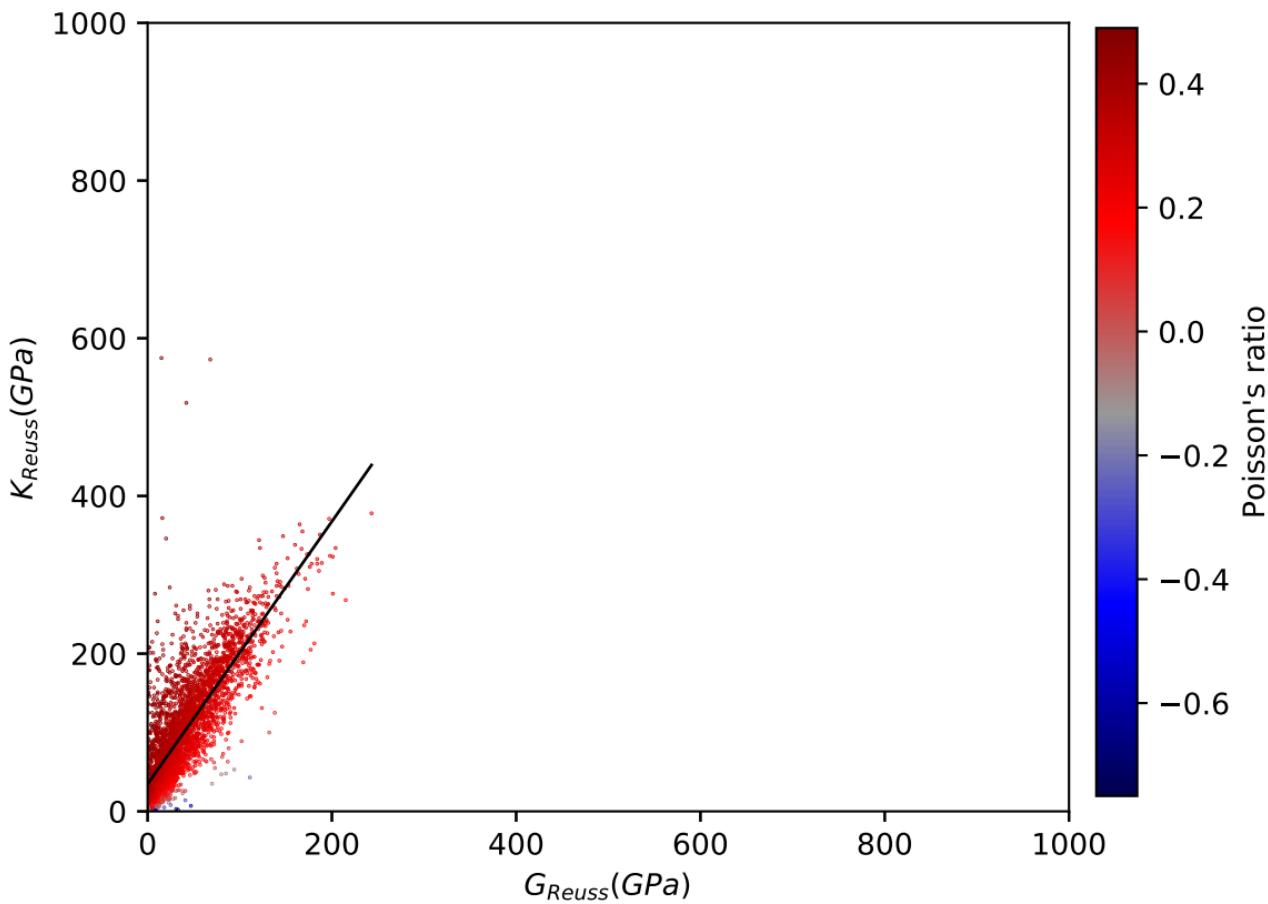
1000

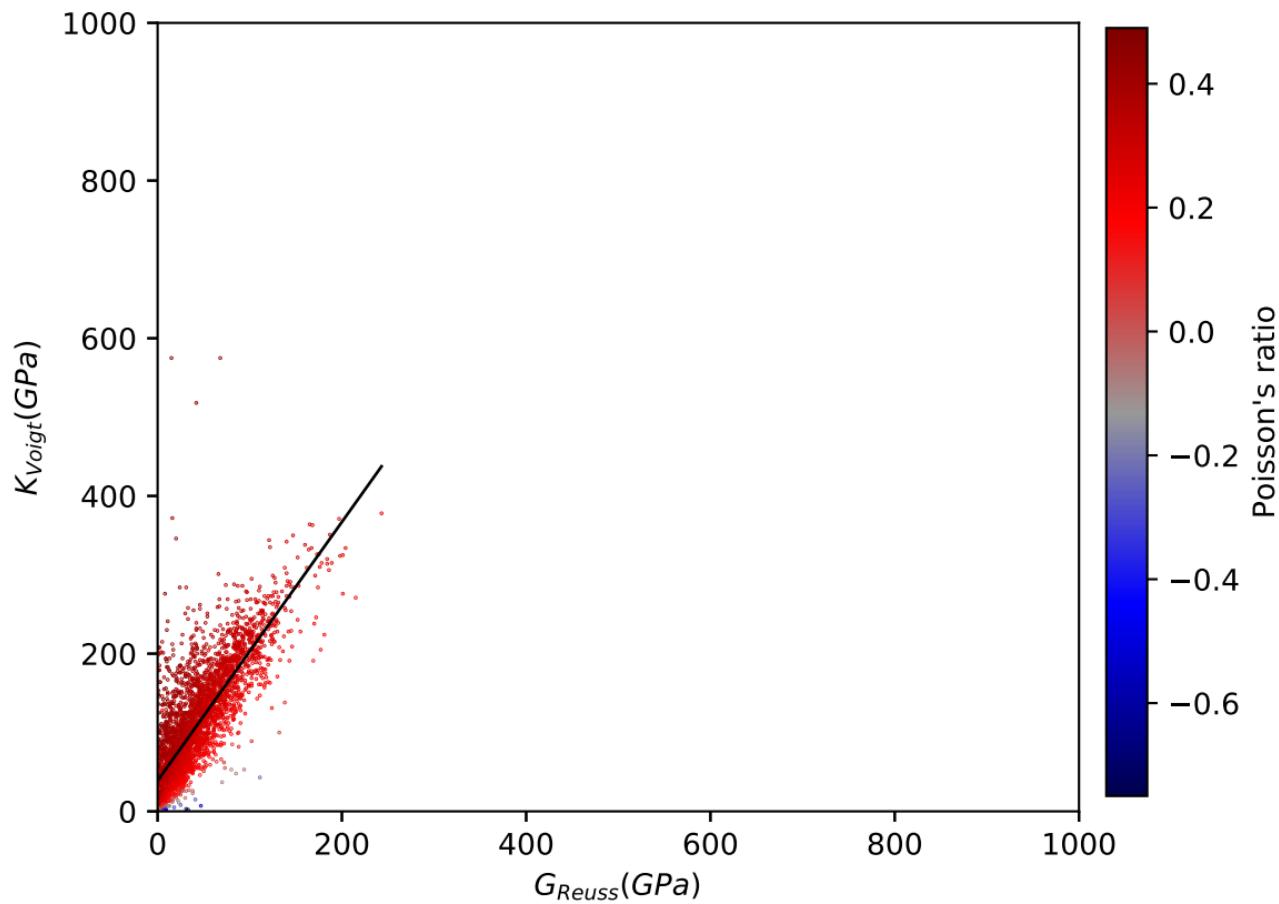
 $G_{Reuss}(GPa)$ 

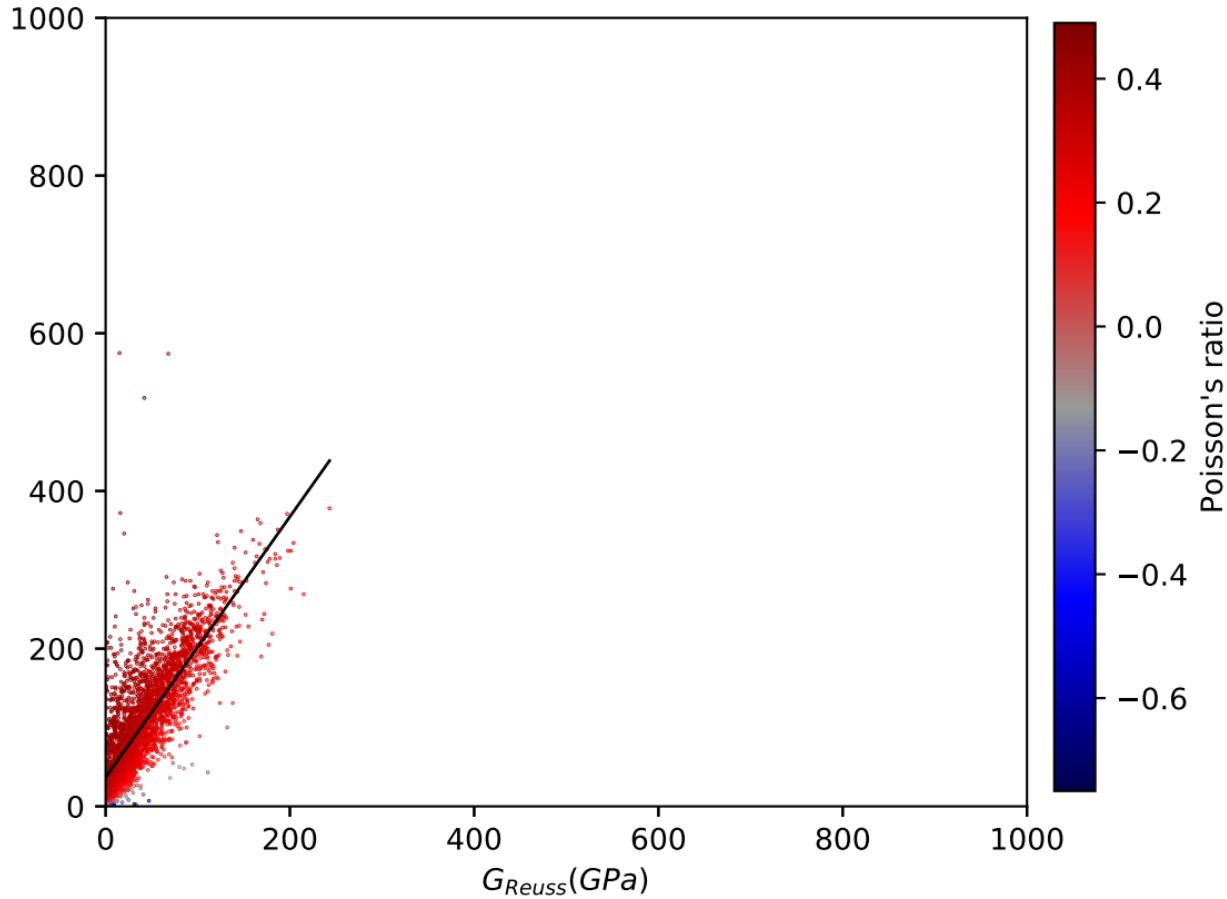
0.4  
0.2  
0.0  
-0.2  
-0.4  
-0.6

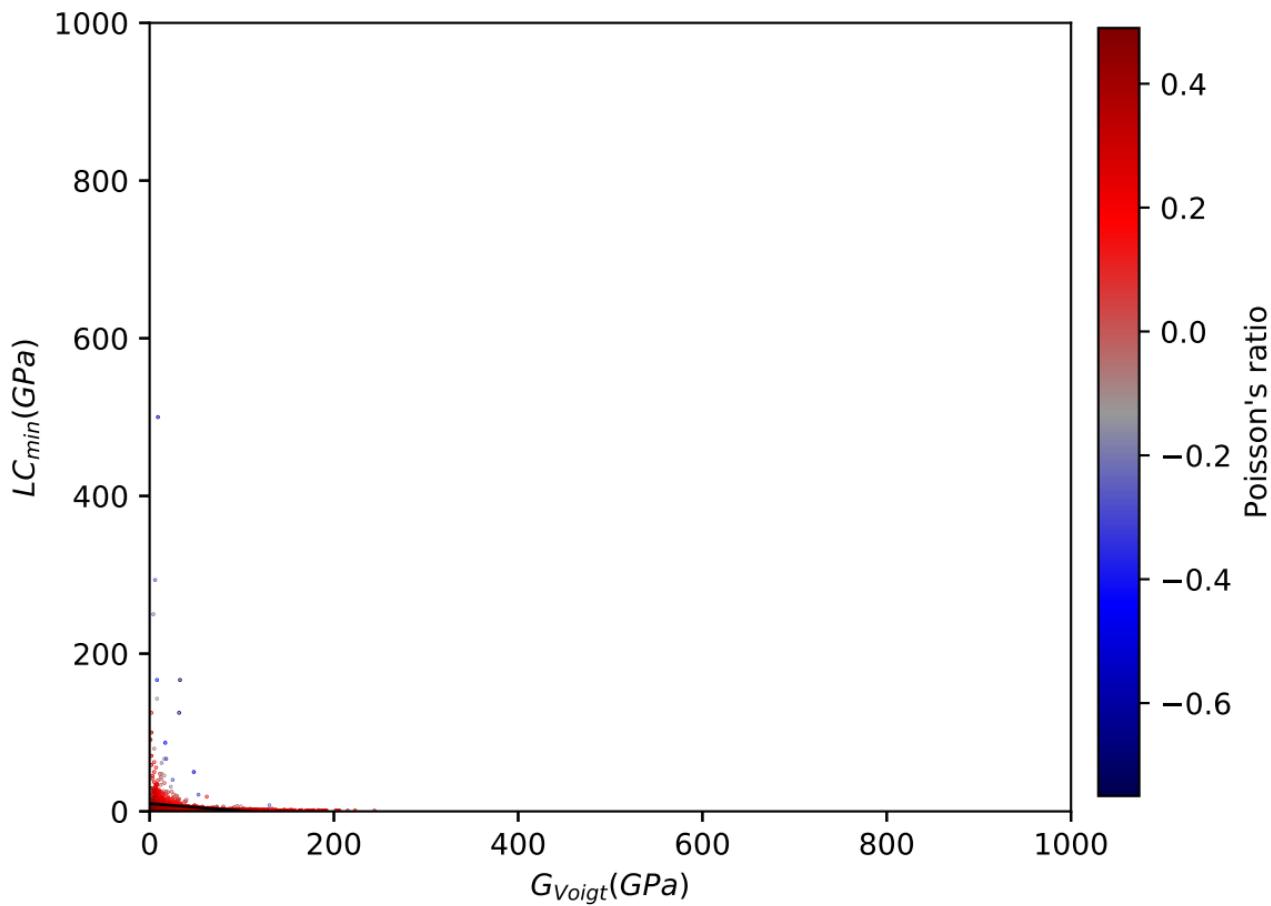
$G_{Voigt\ Reuss\ Hill}(GPa)$

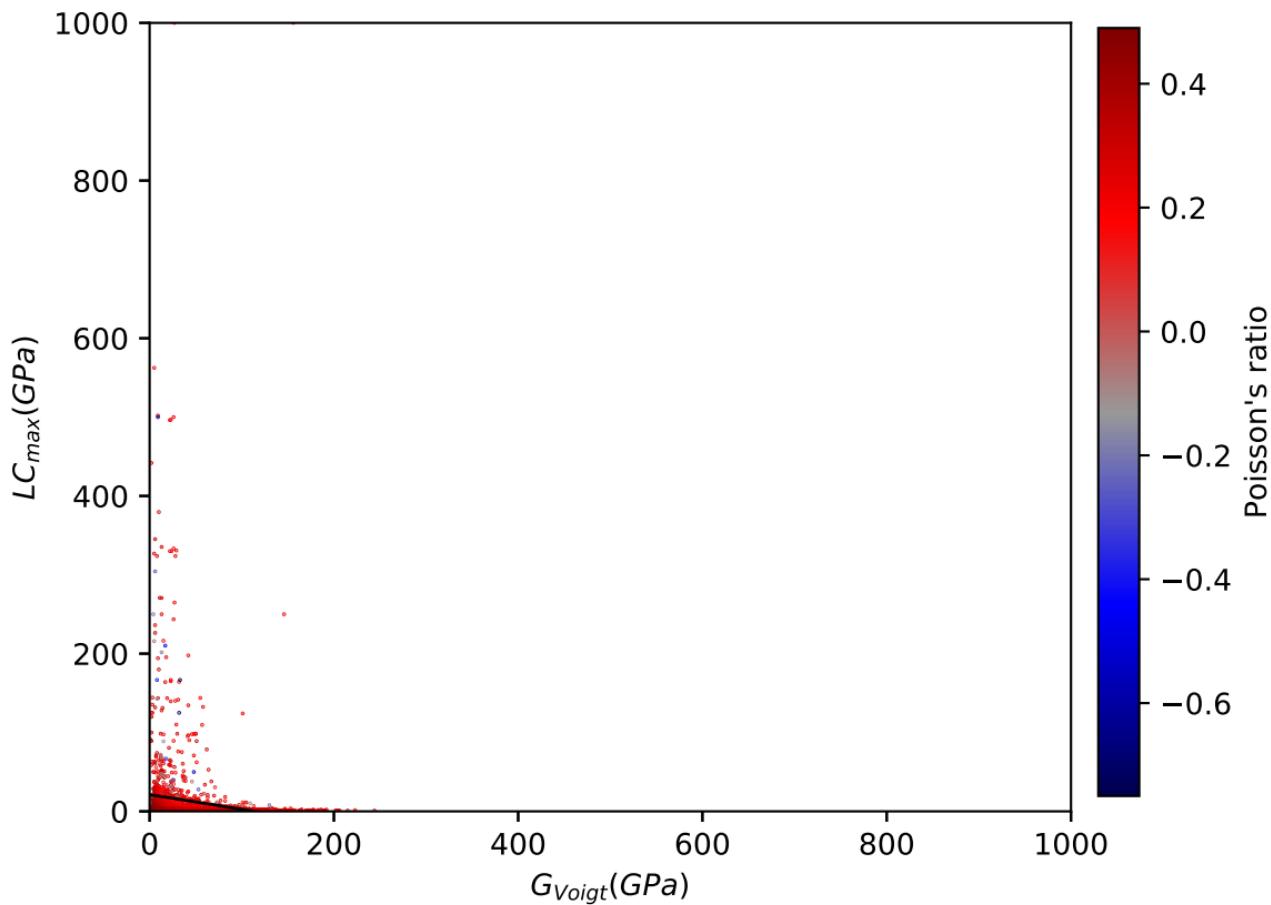


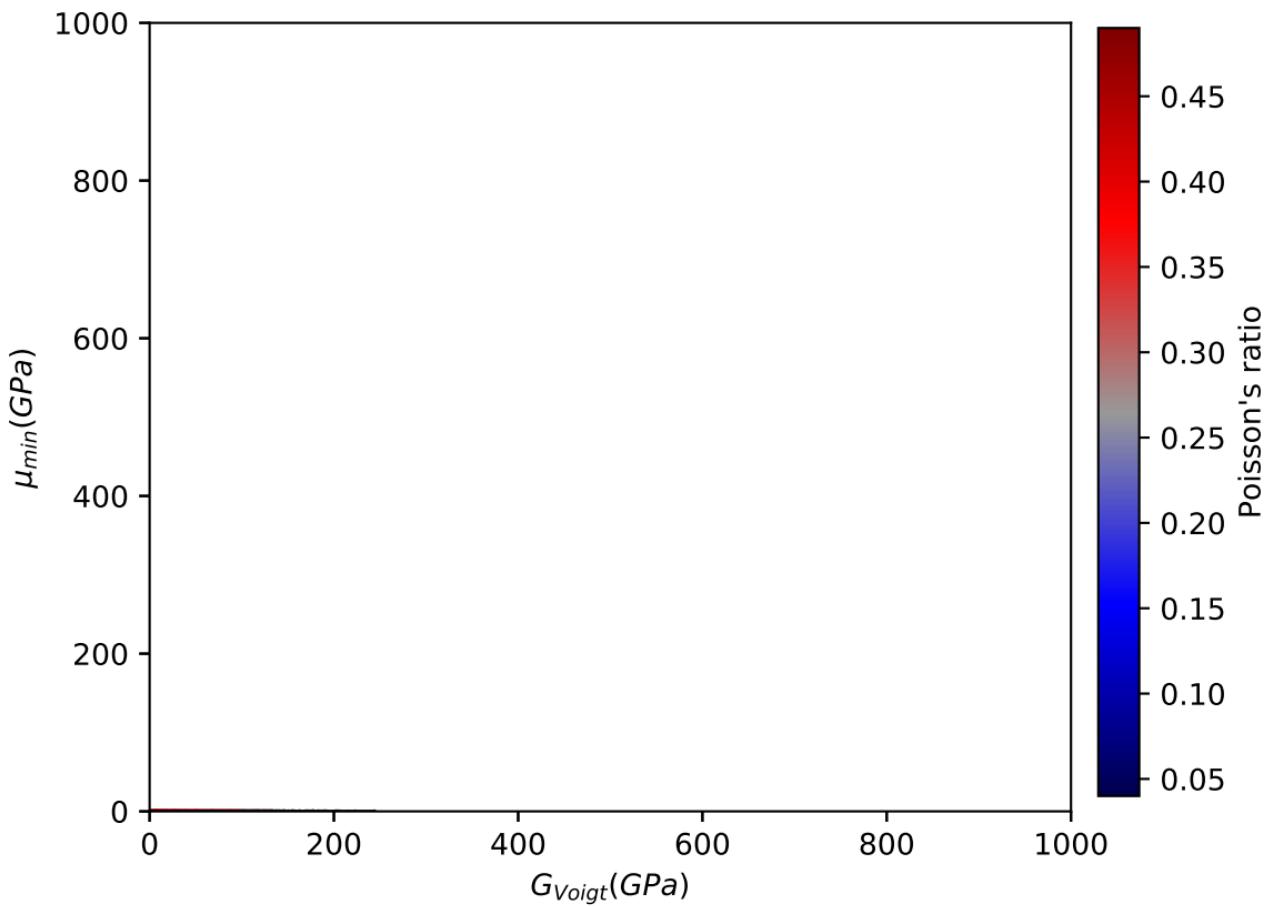


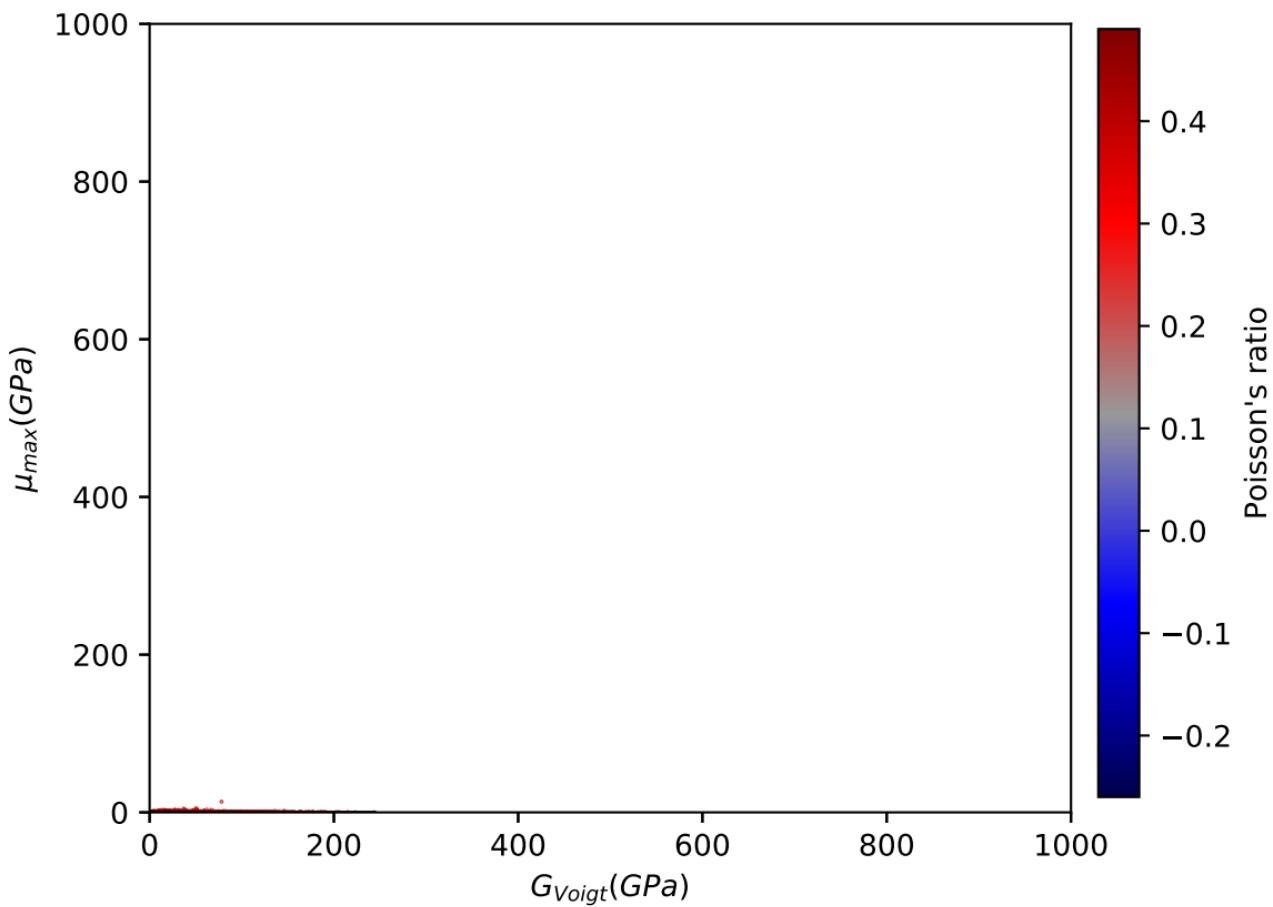


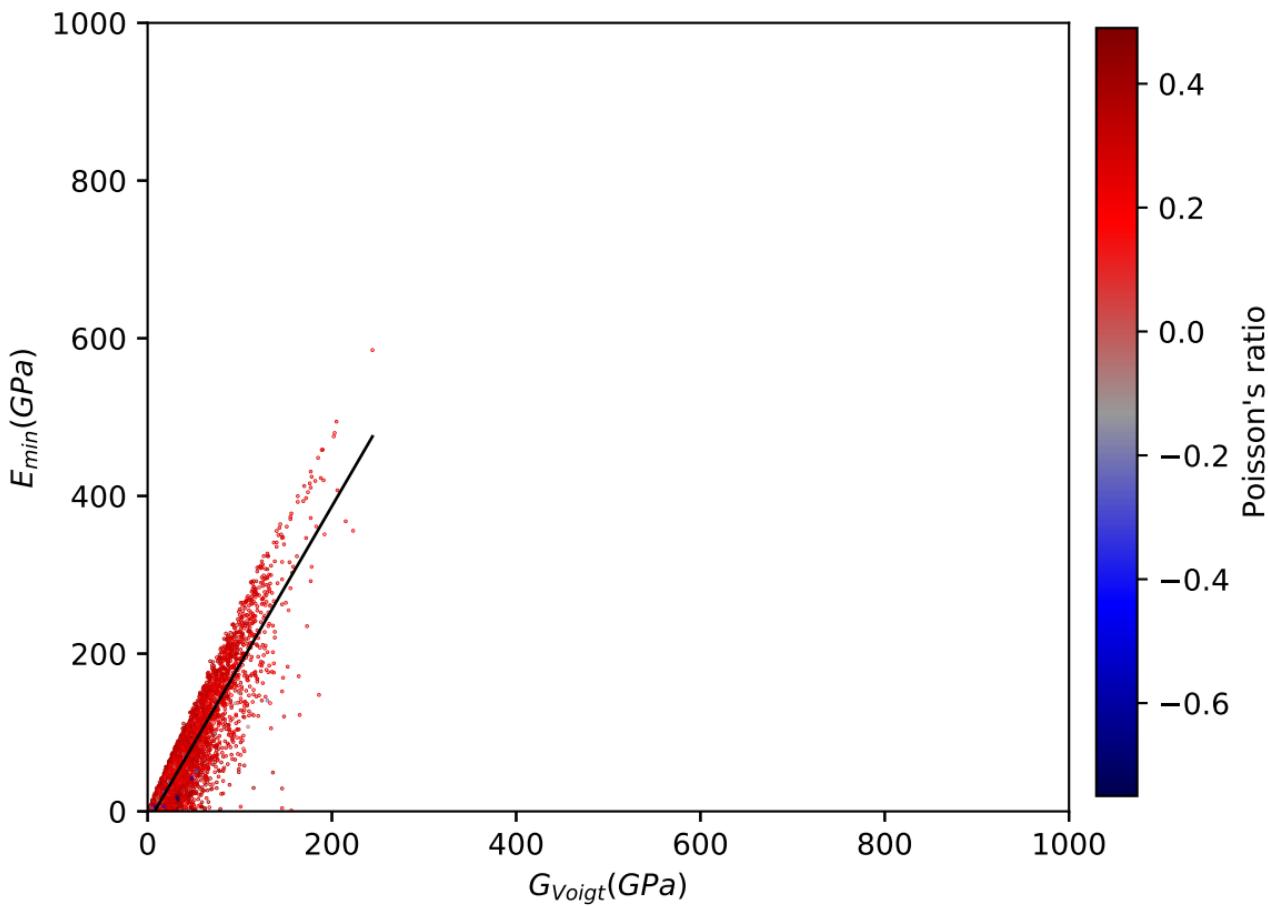
$K_{\text{voigt Reuss Hill}}(\text{GPa})$ 

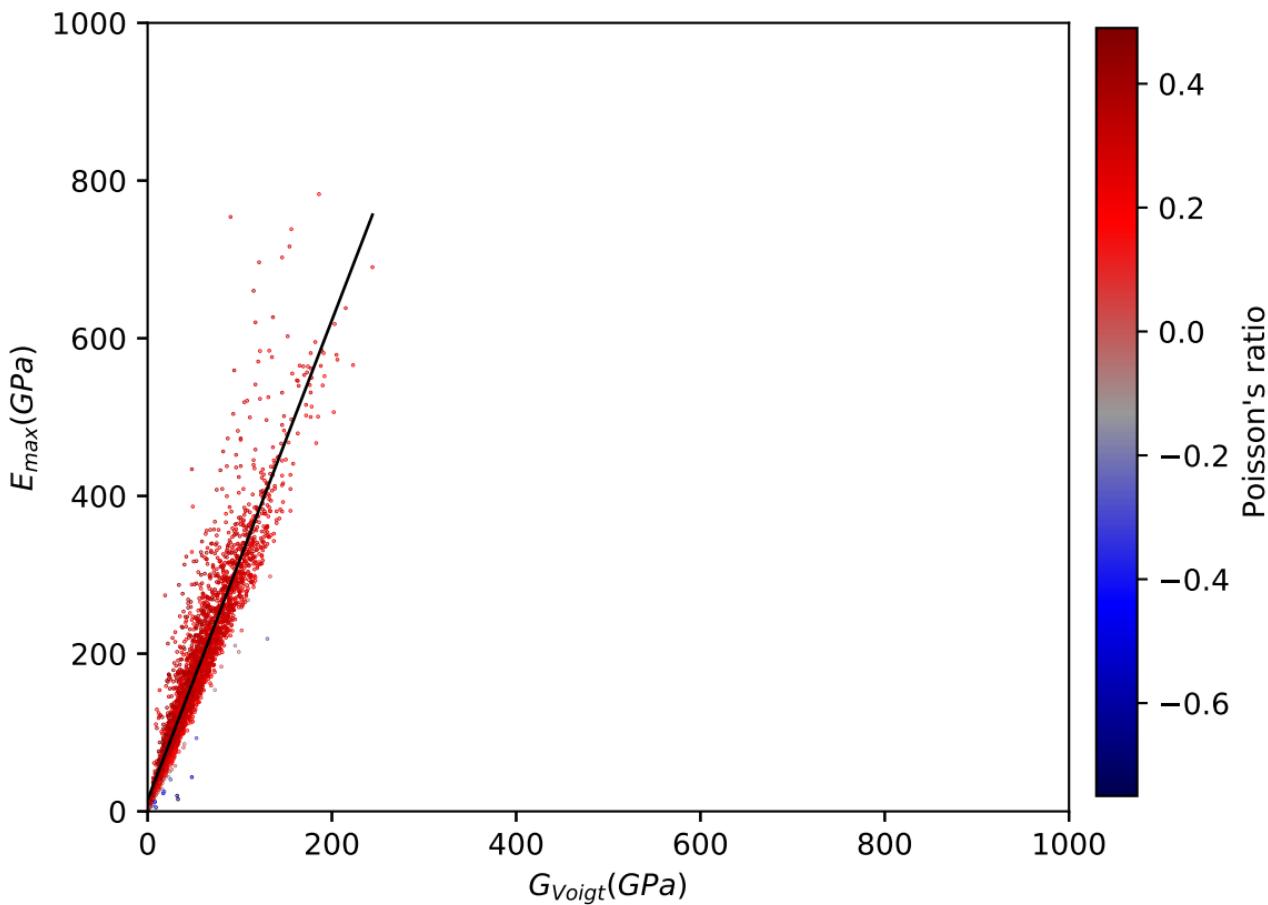


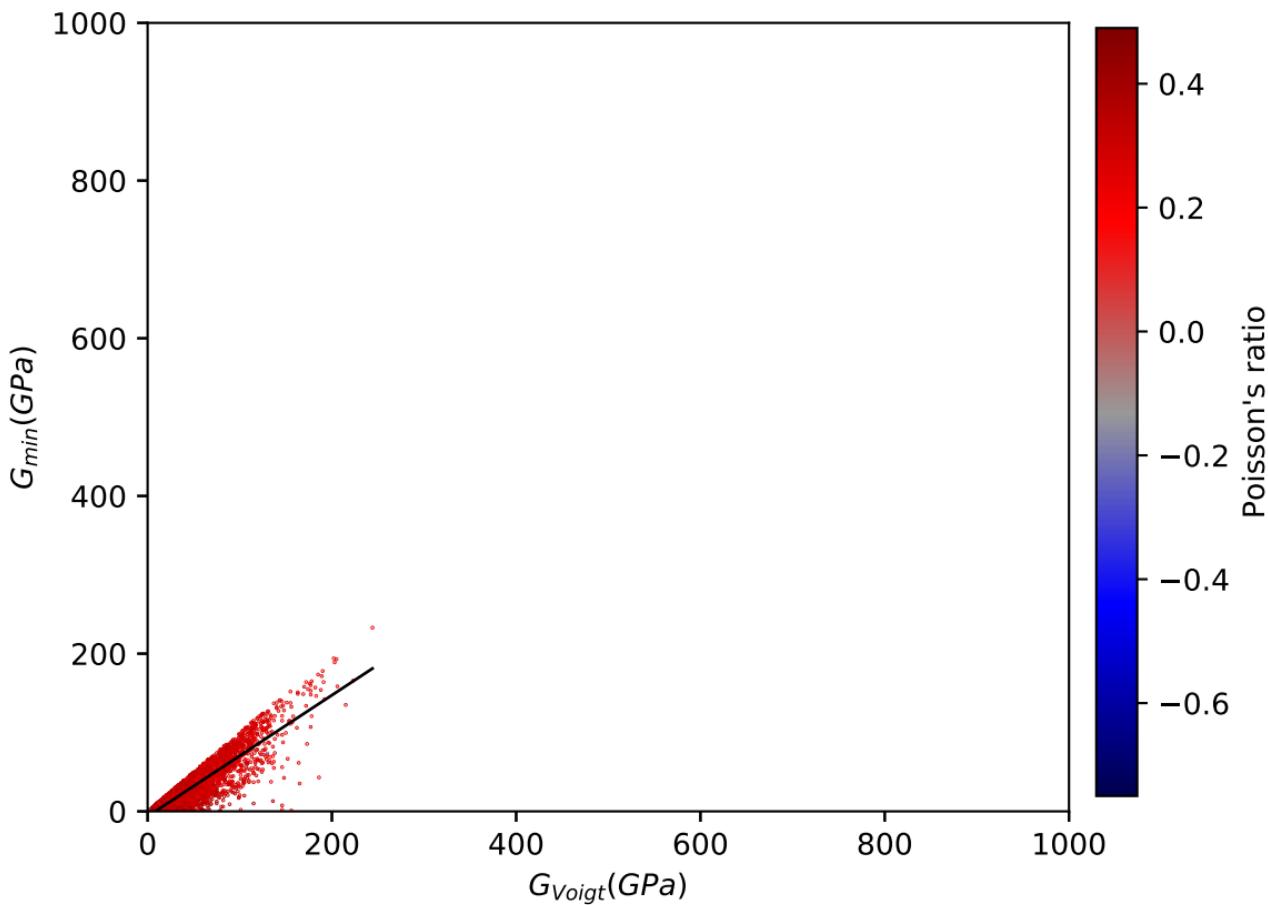


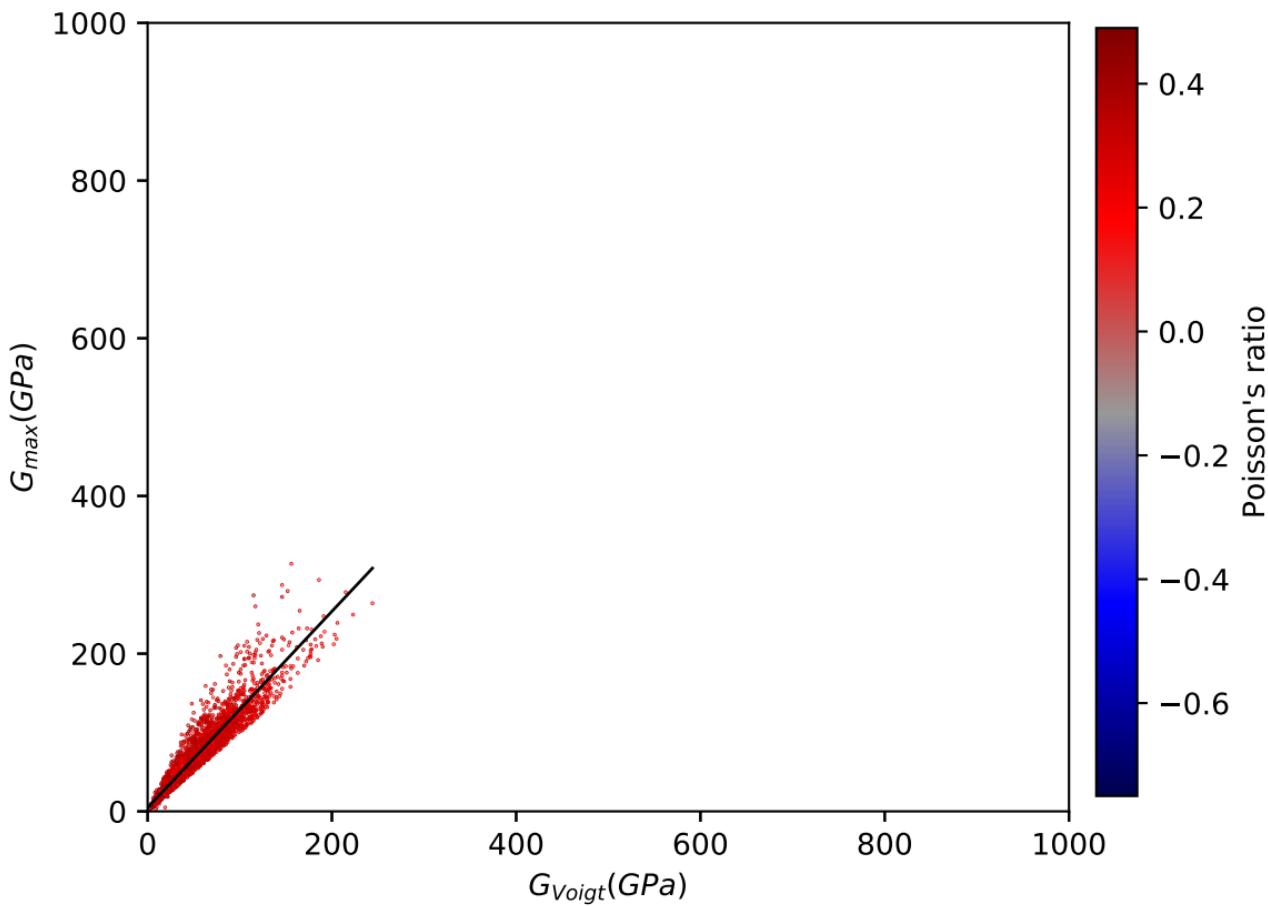


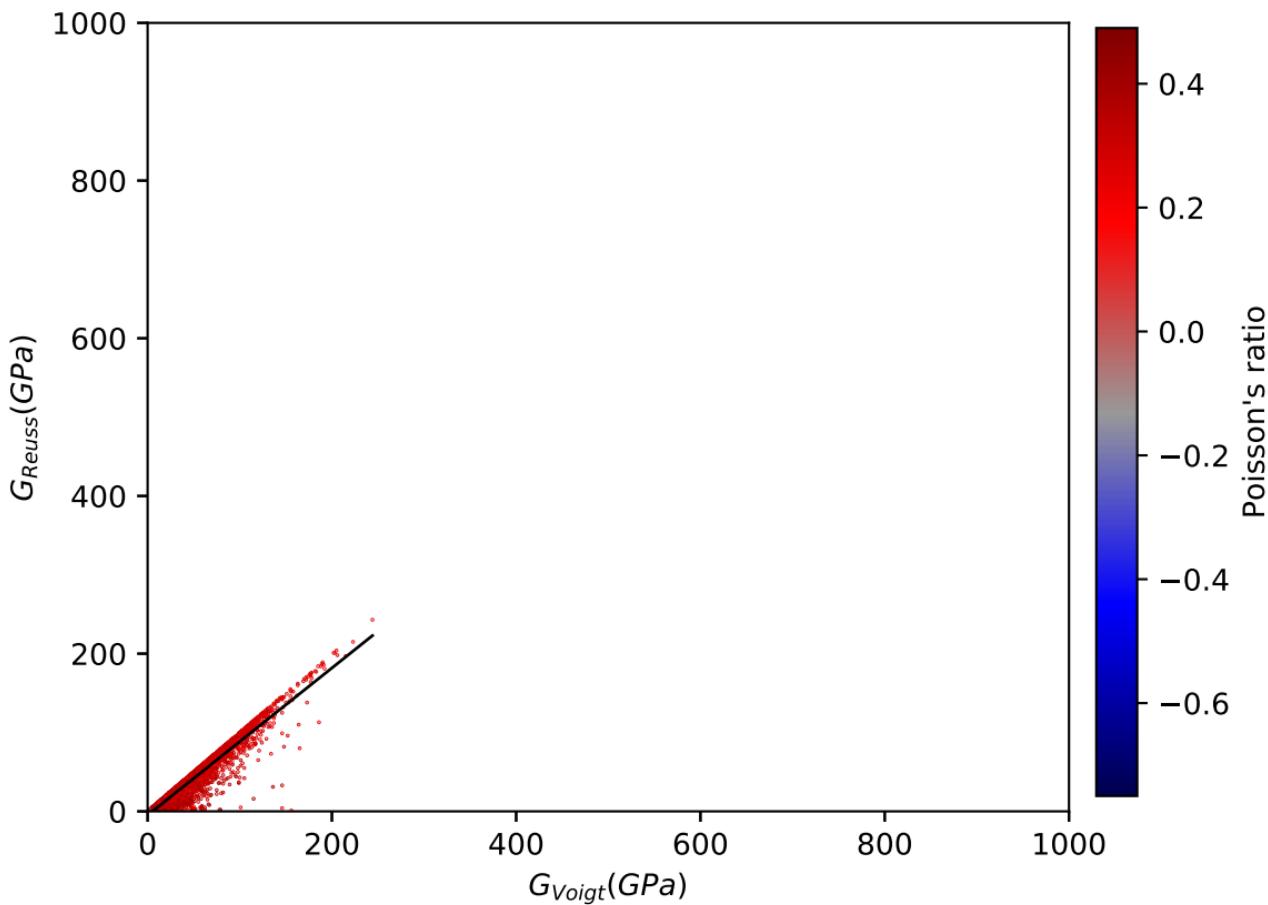












$G_{Voigt \text{ Reuss } Hill}(GPa)$

1000

800

600

400

200

0

200

400

600

800

1000

$G_{Voigt}(GPa)$

Poisson's ratio

0.4

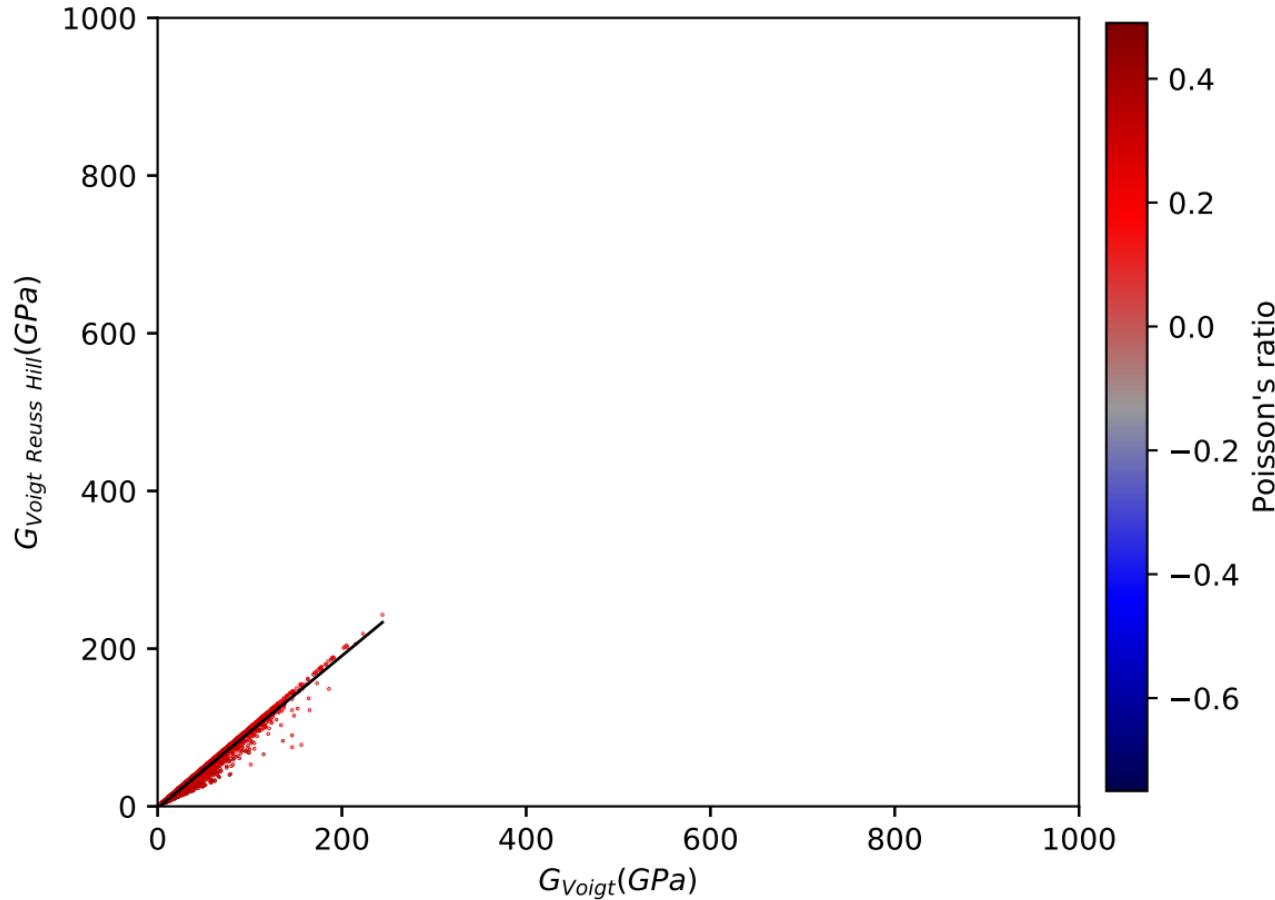
0.2

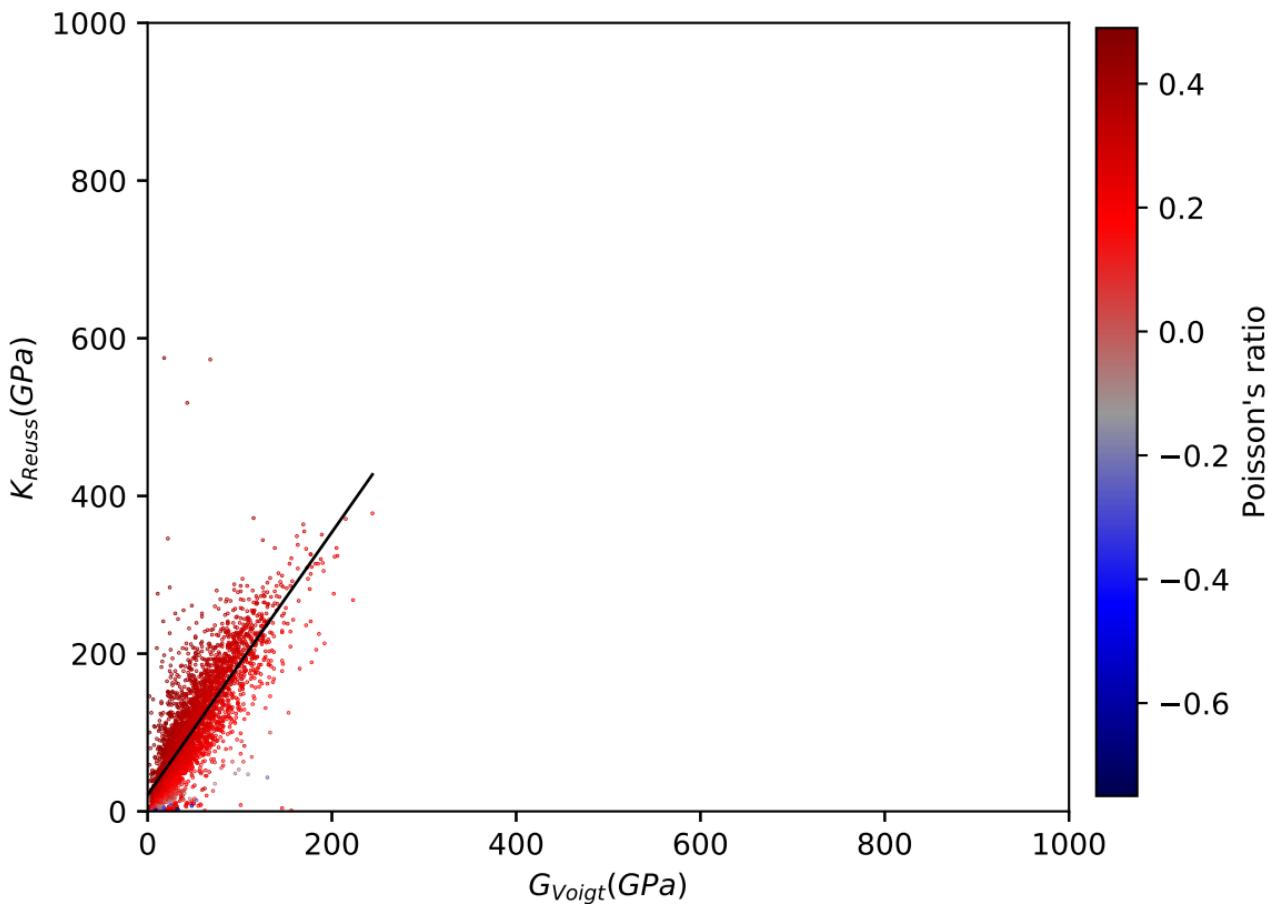
0.0

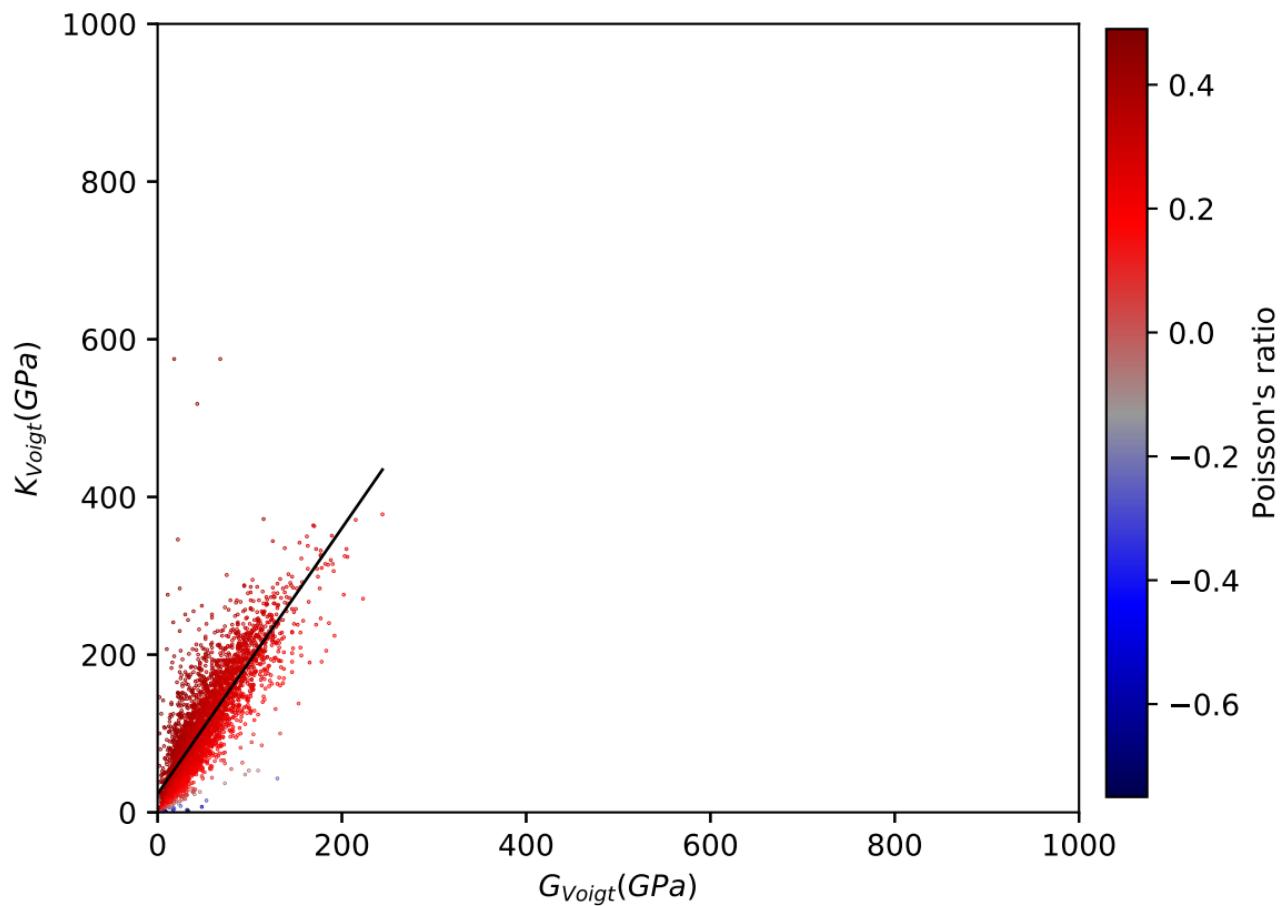
-0.2

-0.4

-0.6







$K_{Voigt\text{ Reuss\ Hill}}(\text{GPa})$ 

1000

800

600

400

200

0

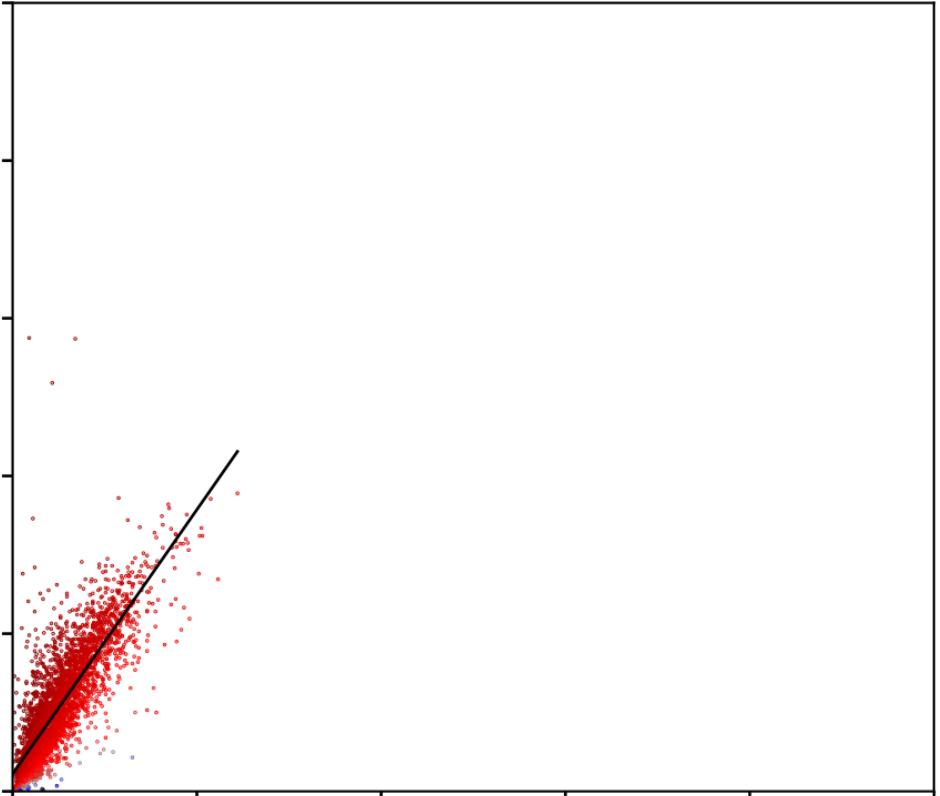
200

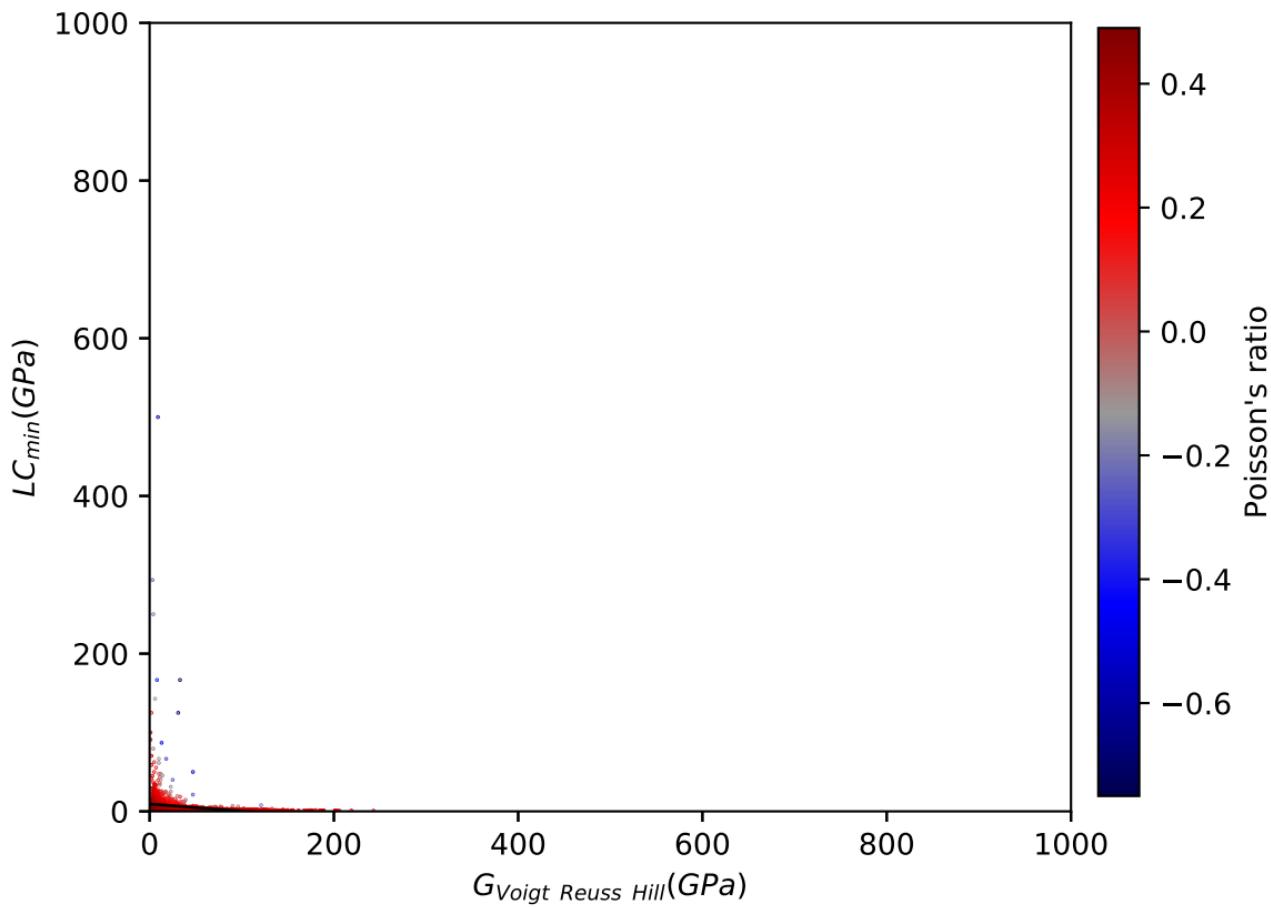
400

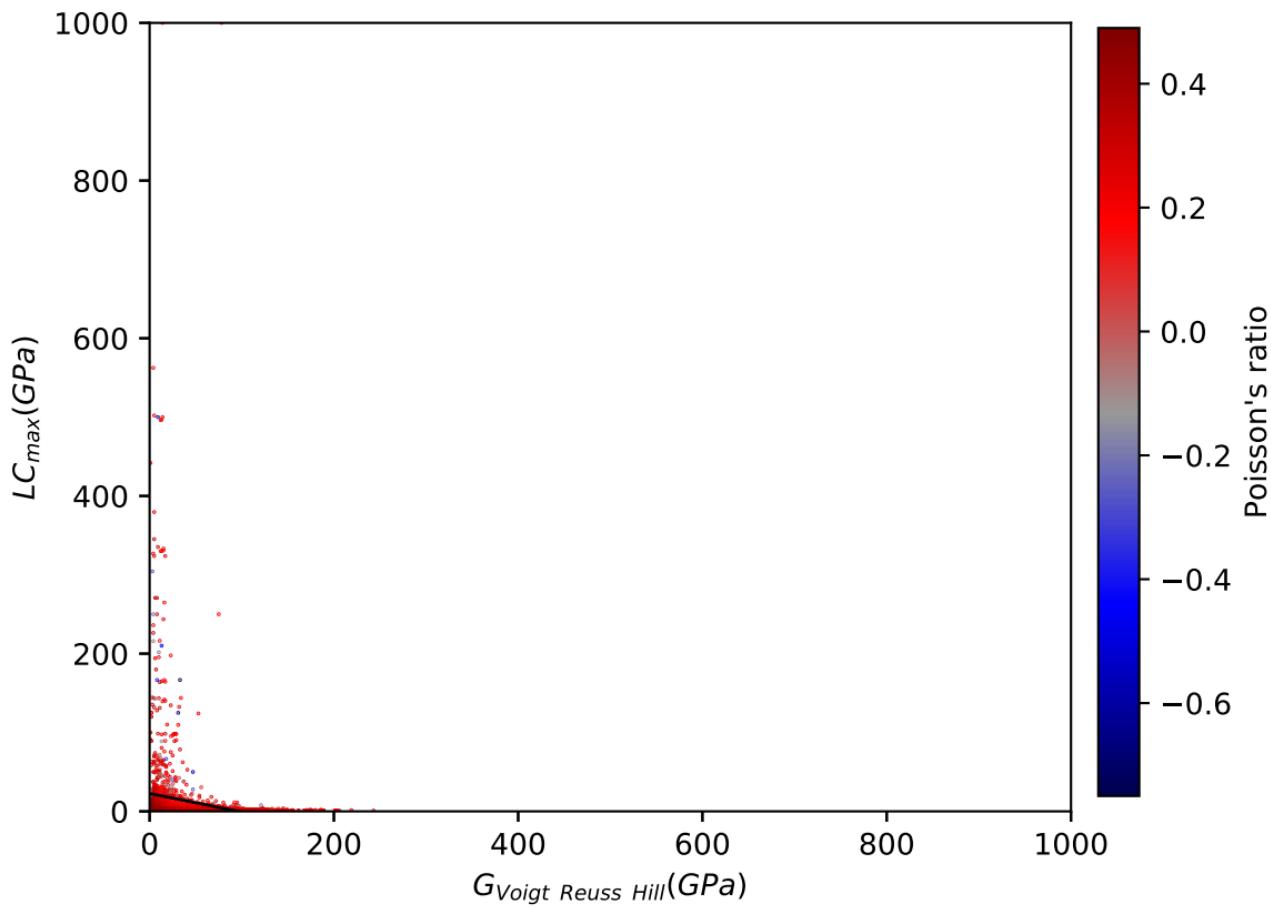
600

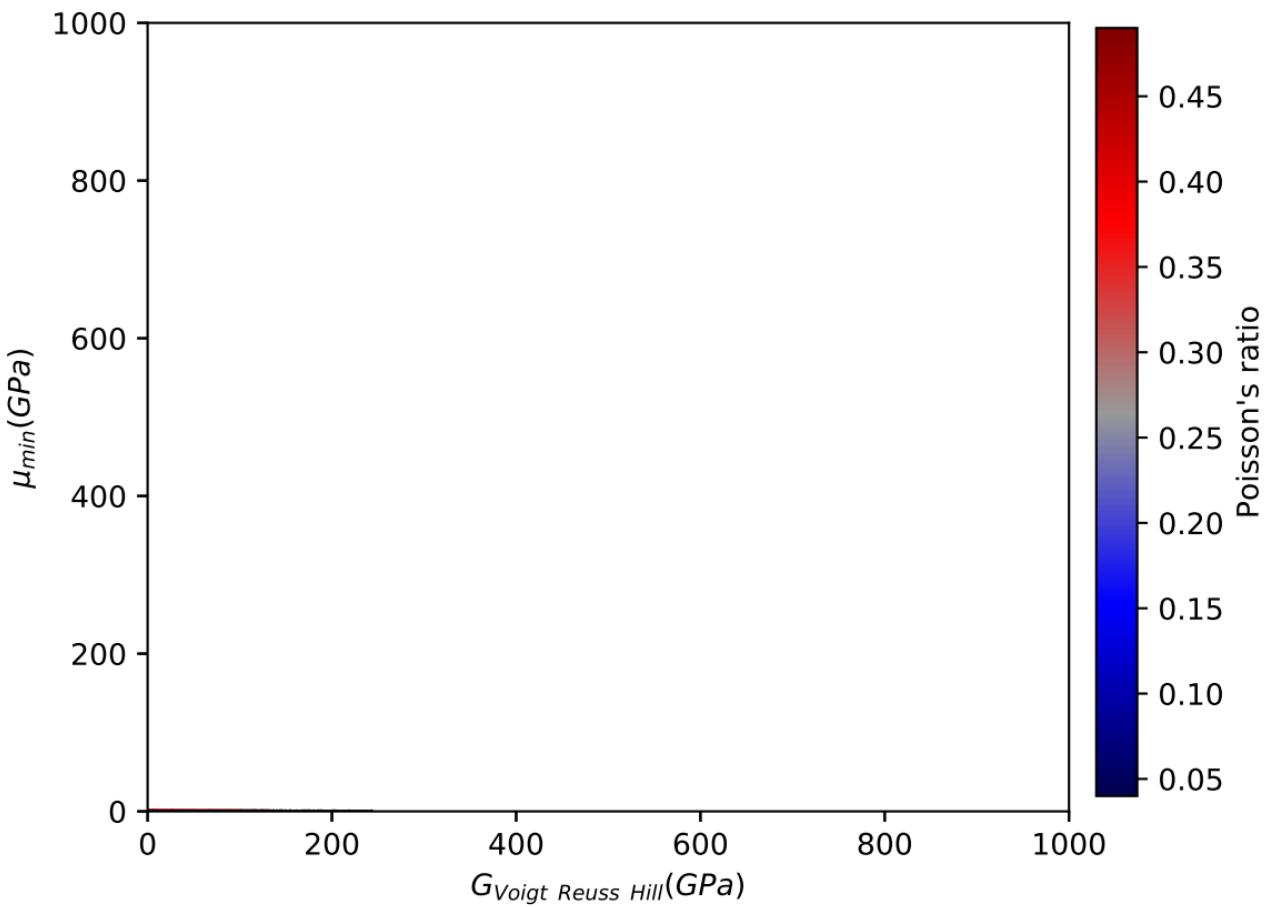
800

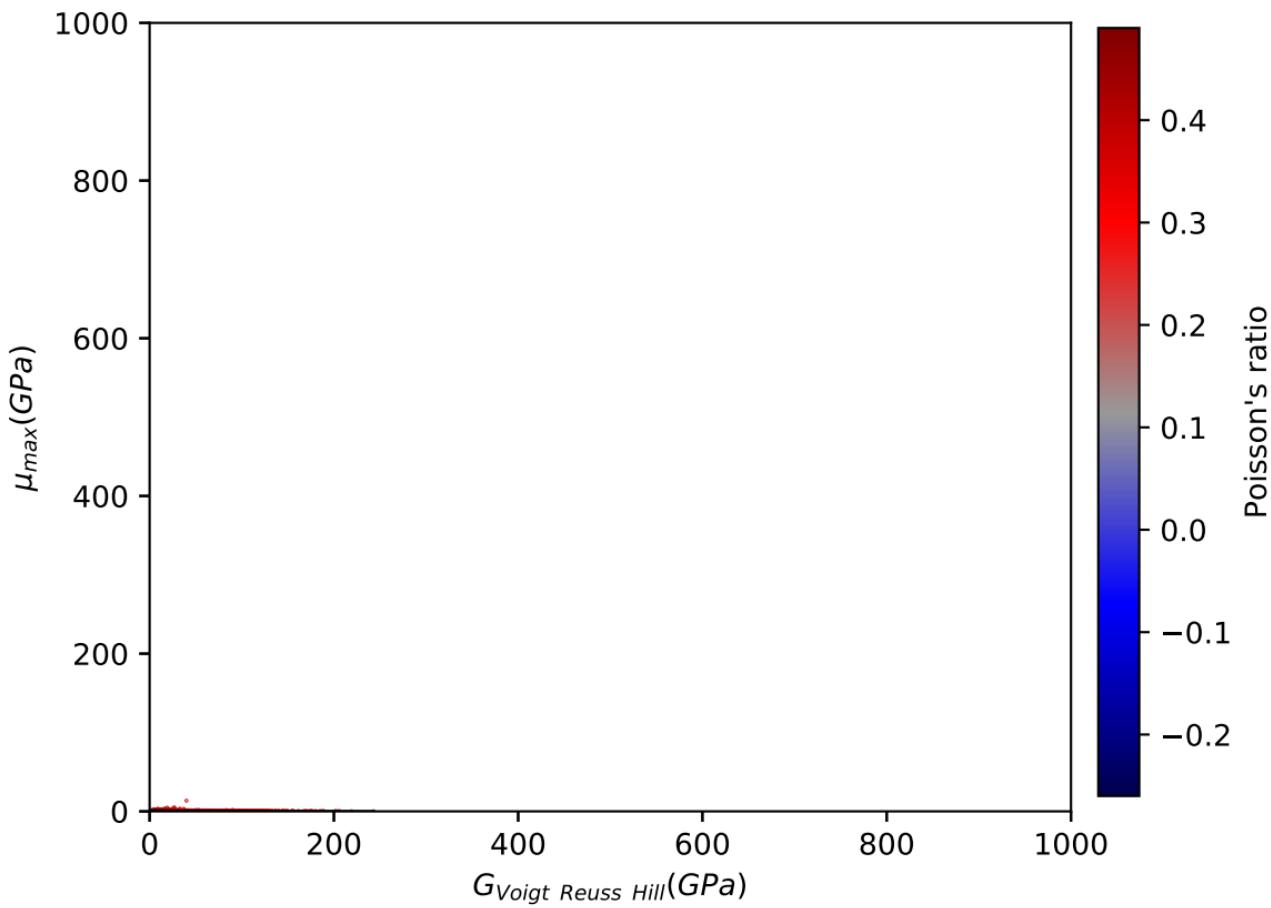
1000

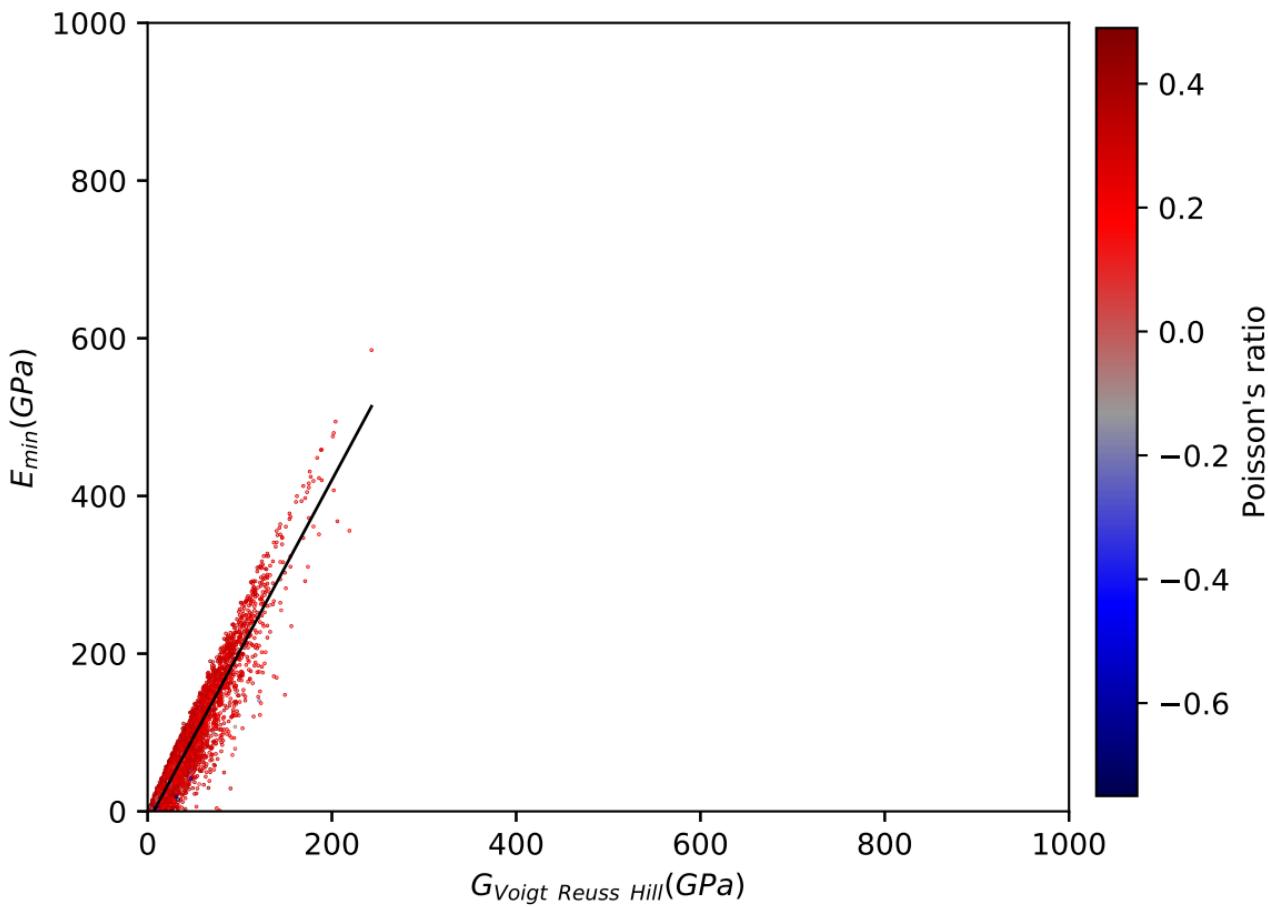
 $G_{Voigt}(\text{GPa})$ 

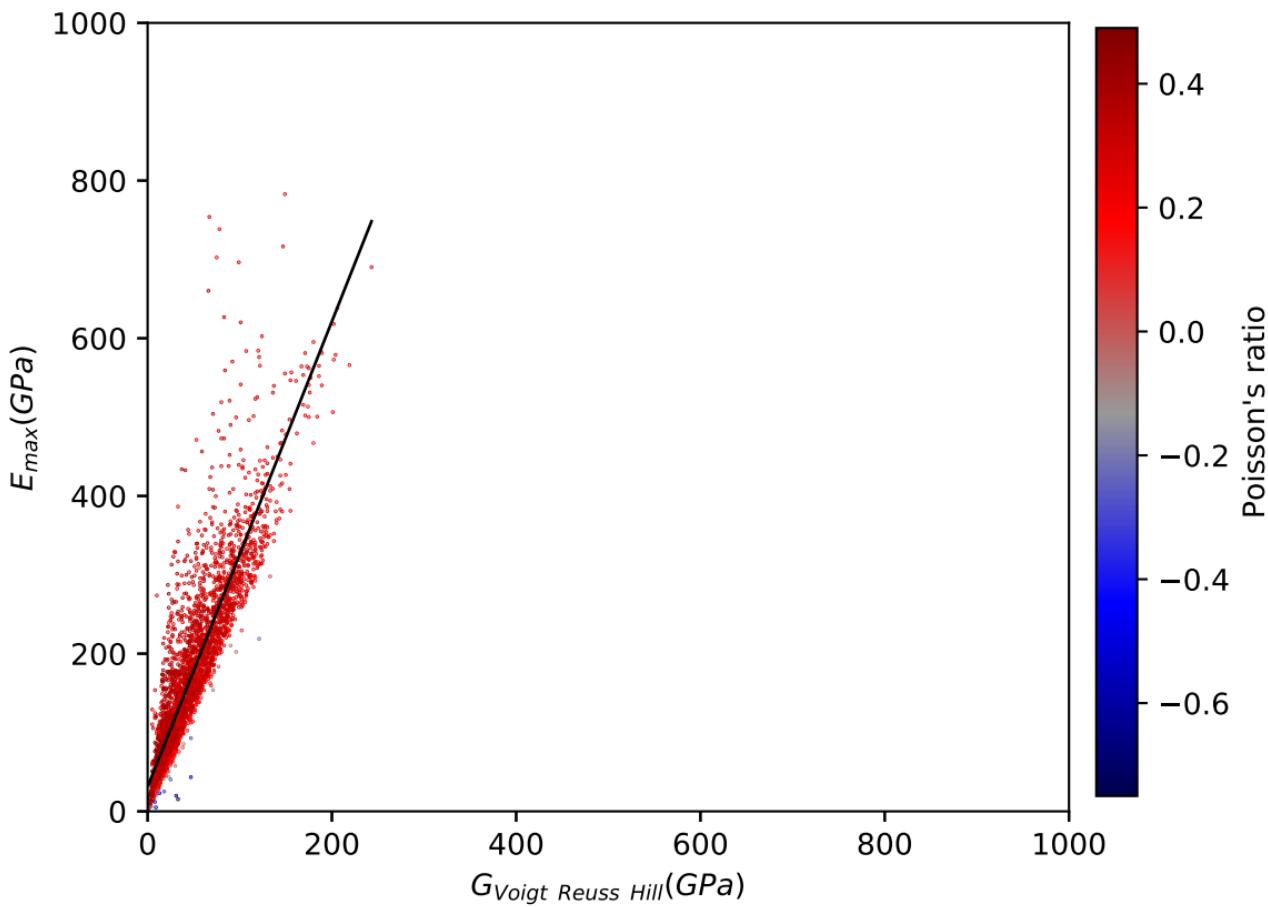


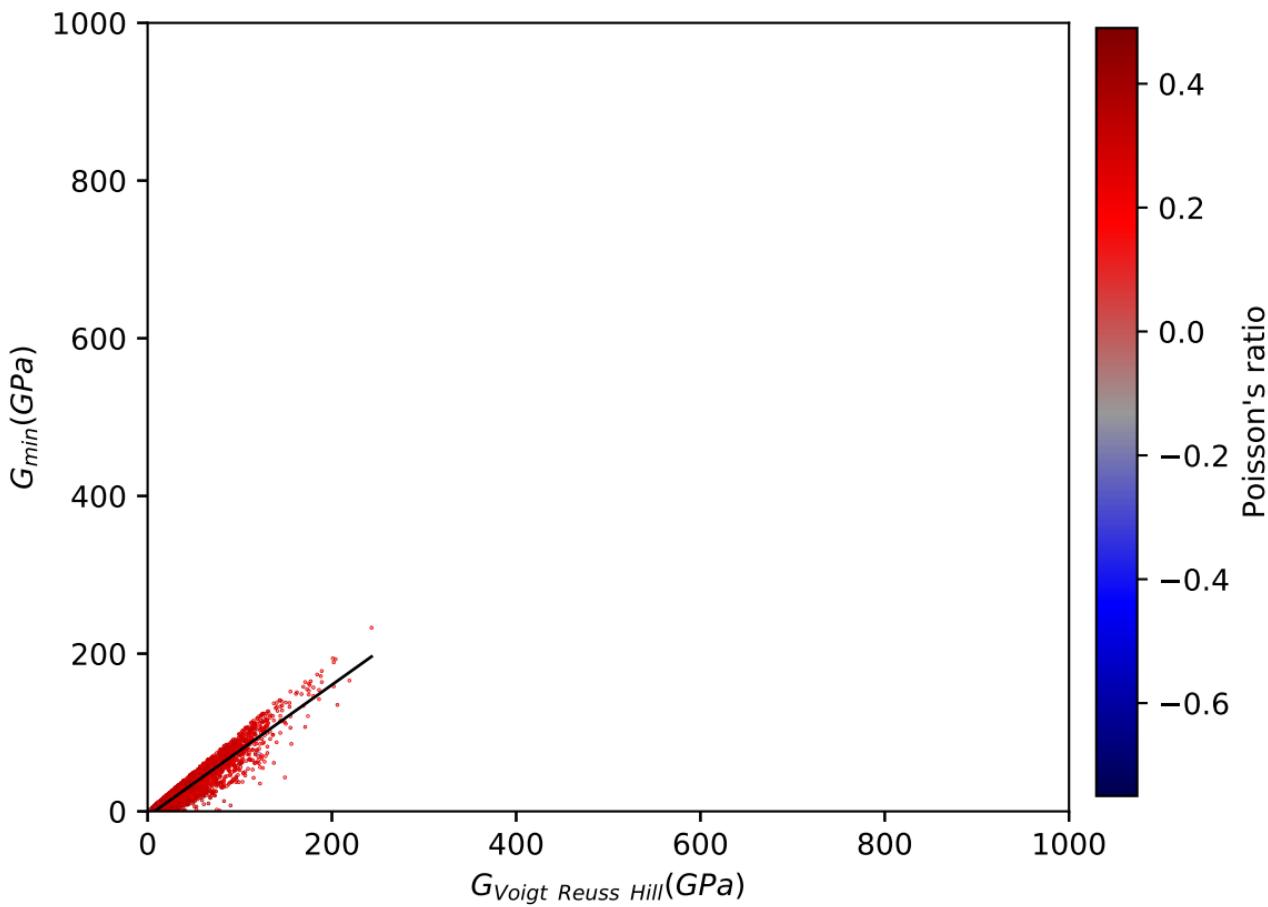


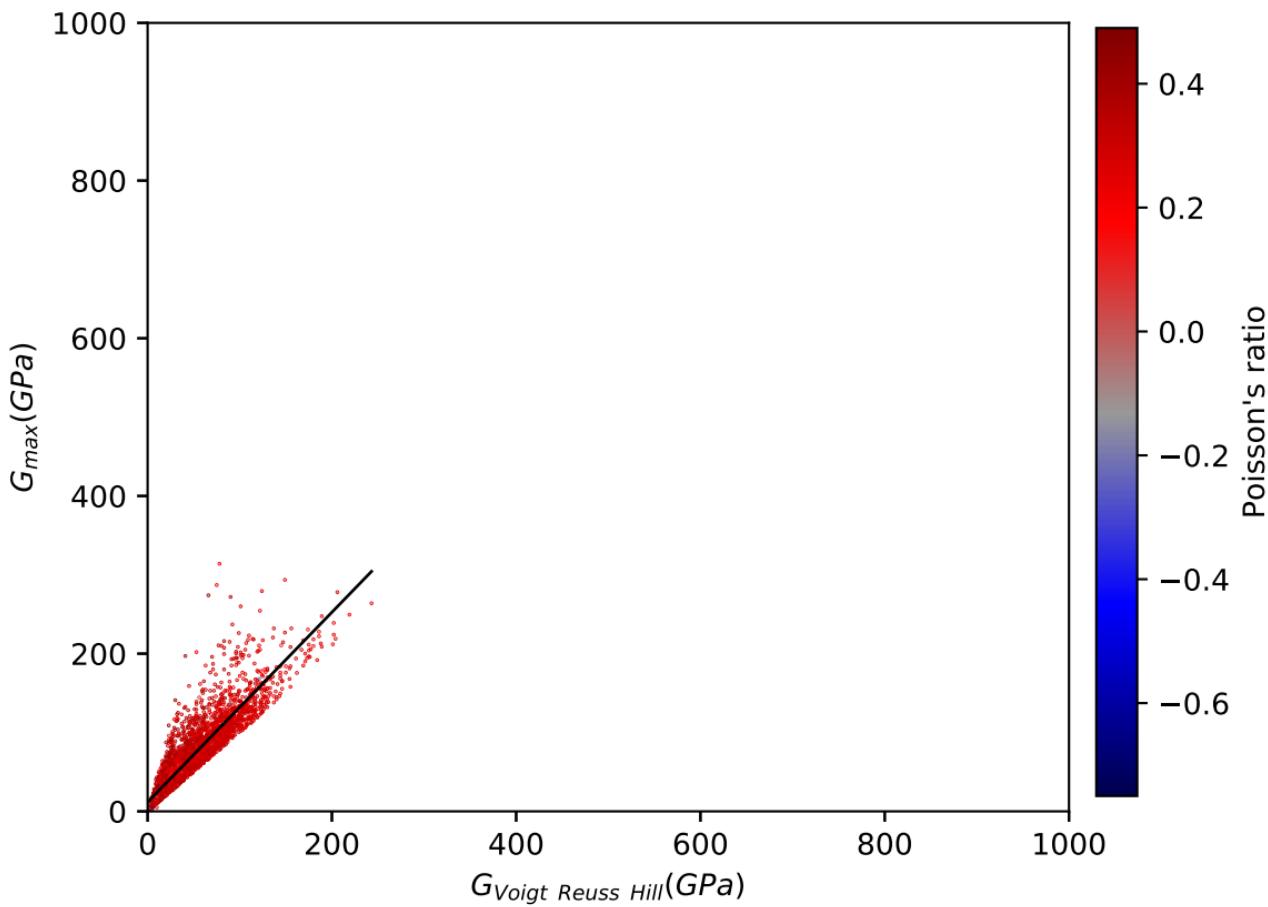


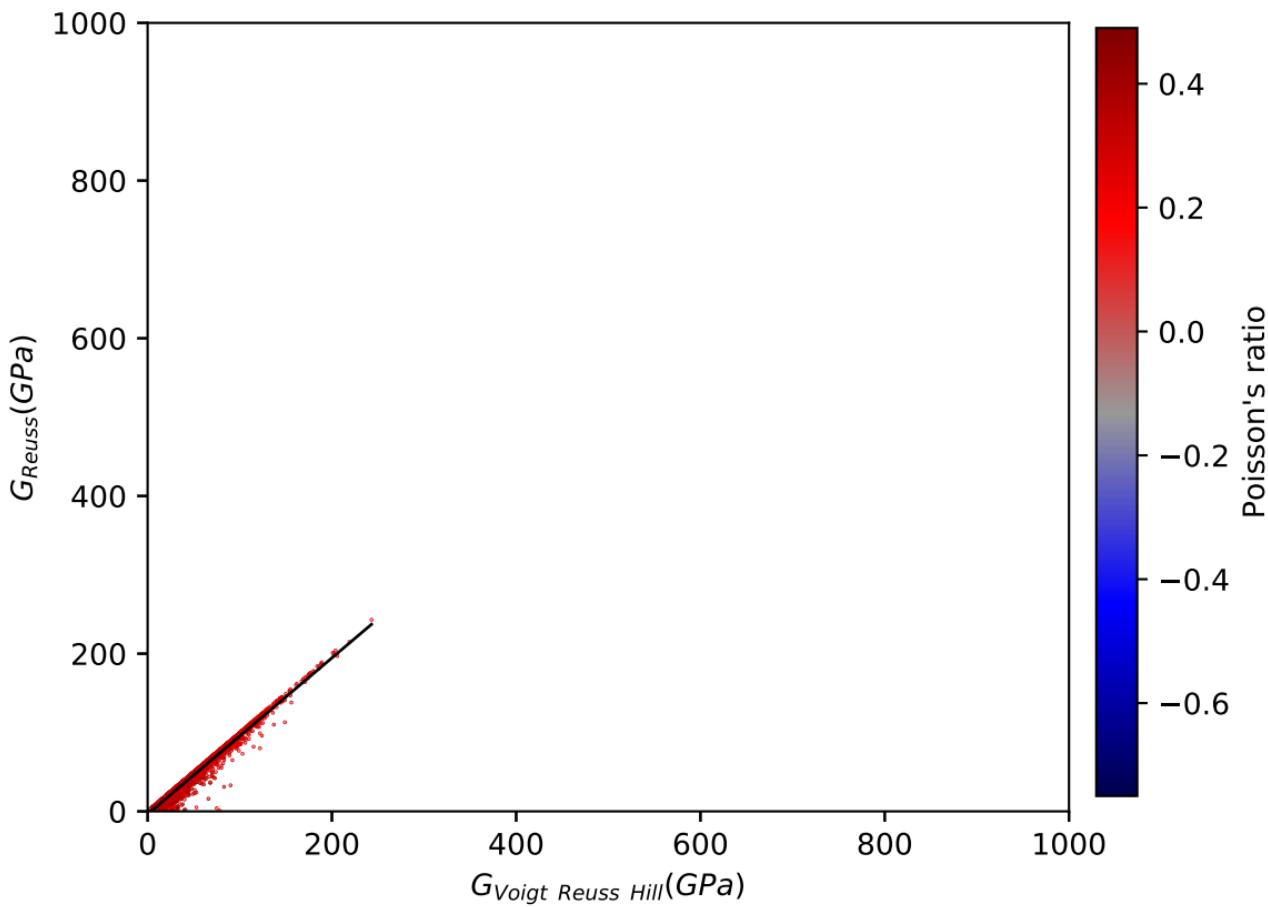


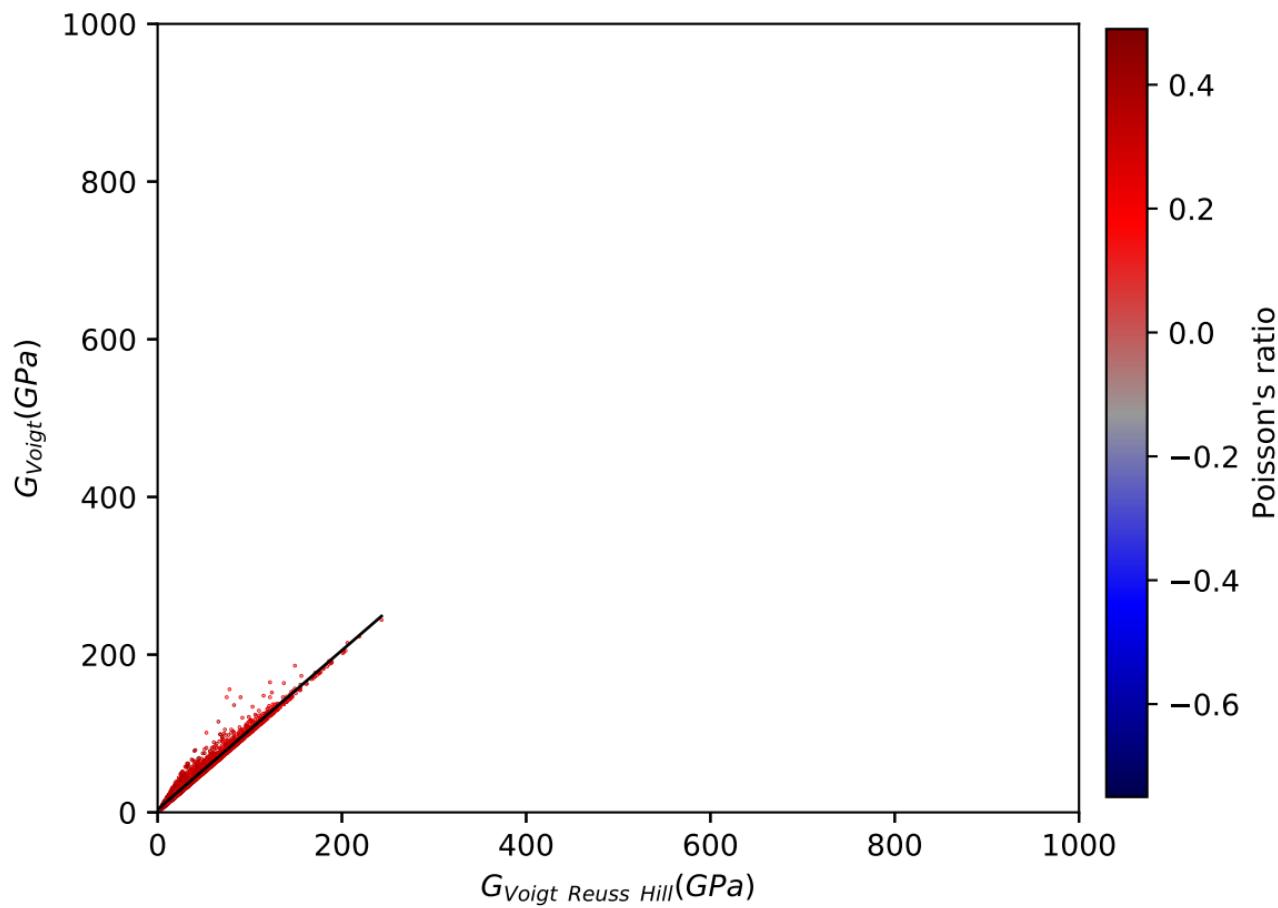


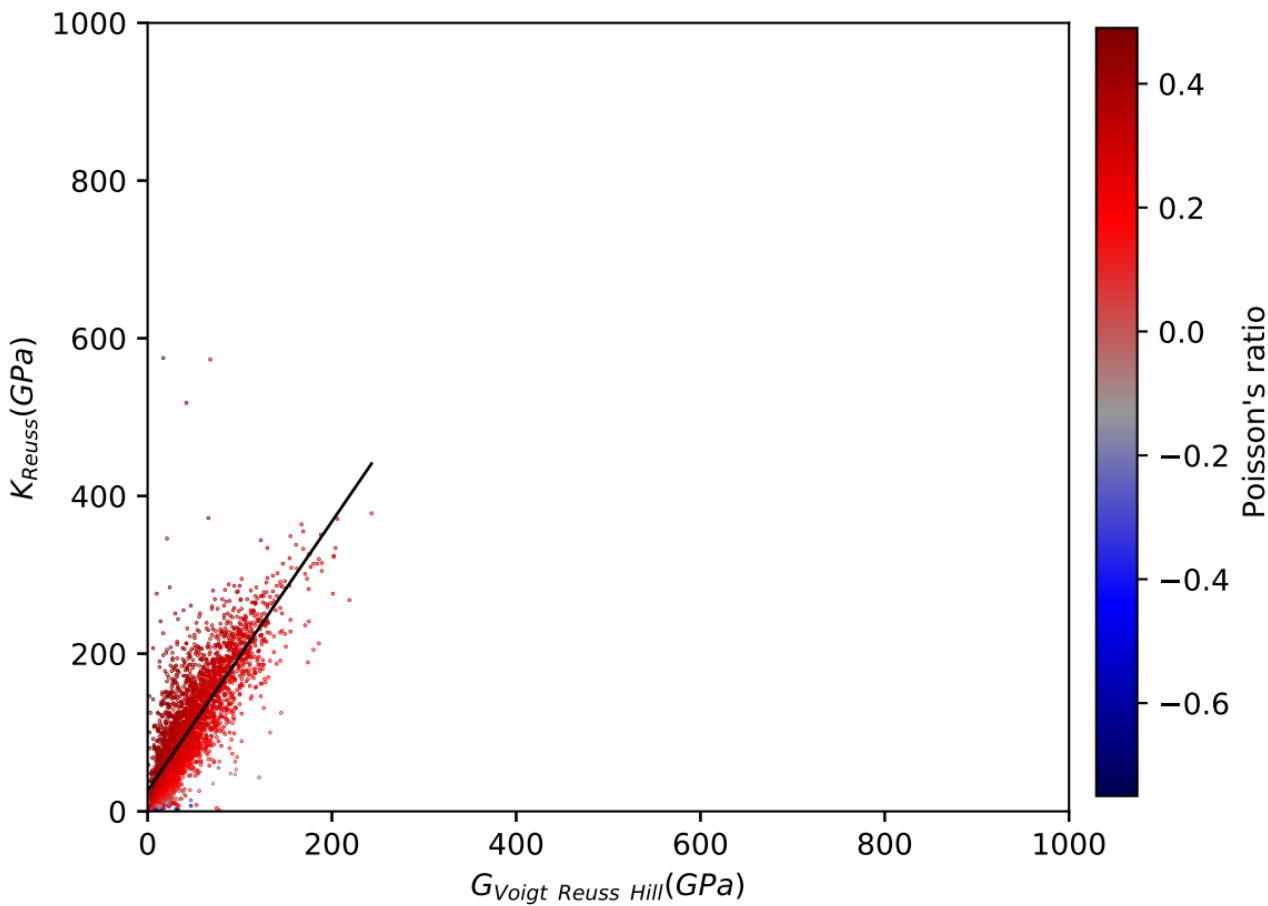


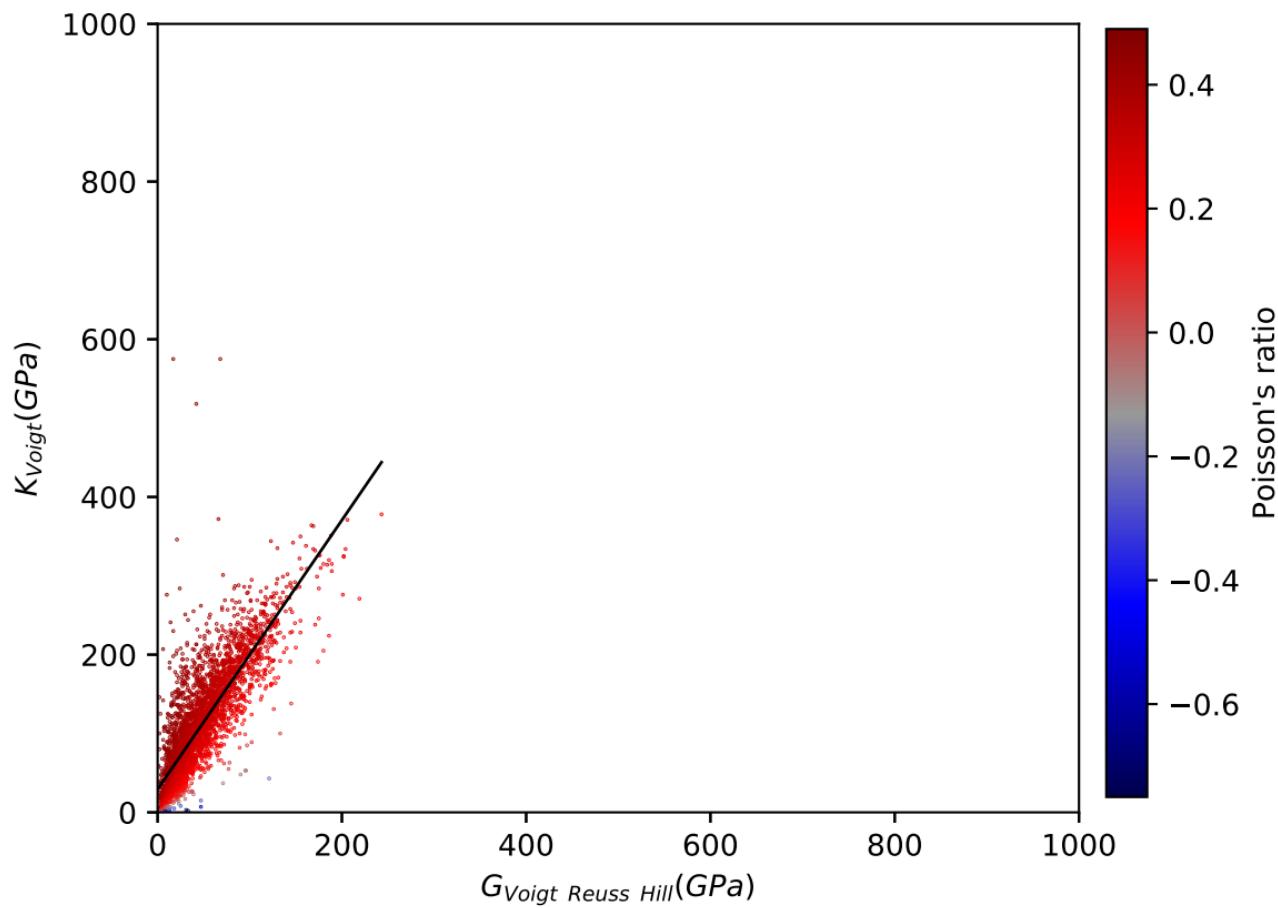












$K_{\text{Voigt Reuss Hill}}(\text{GPa})$

1000

800

600

400

200

0

$G_{\text{Voigt Reuss Hill}}(\text{GPa})$



Poisson's ratio

0.4

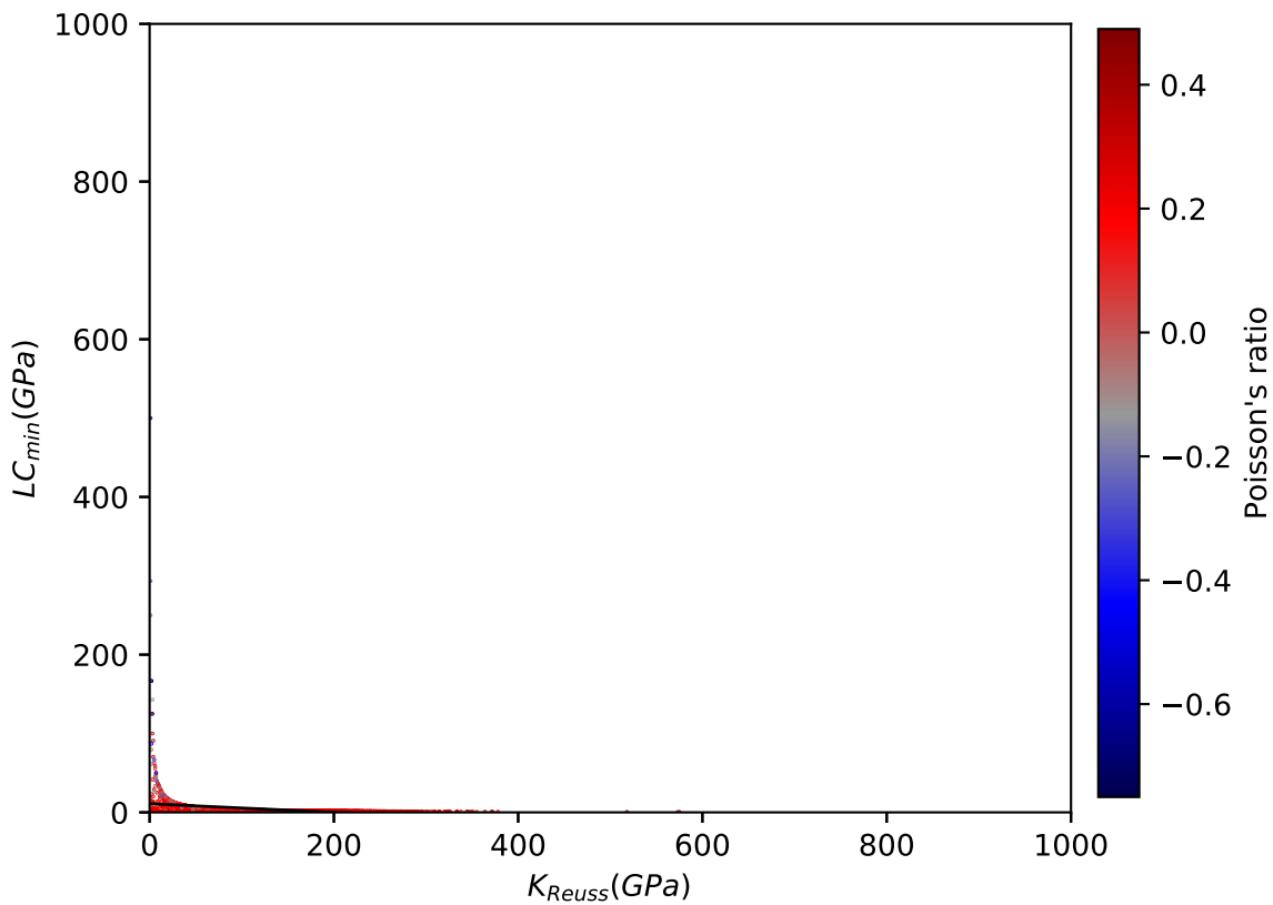
0.2

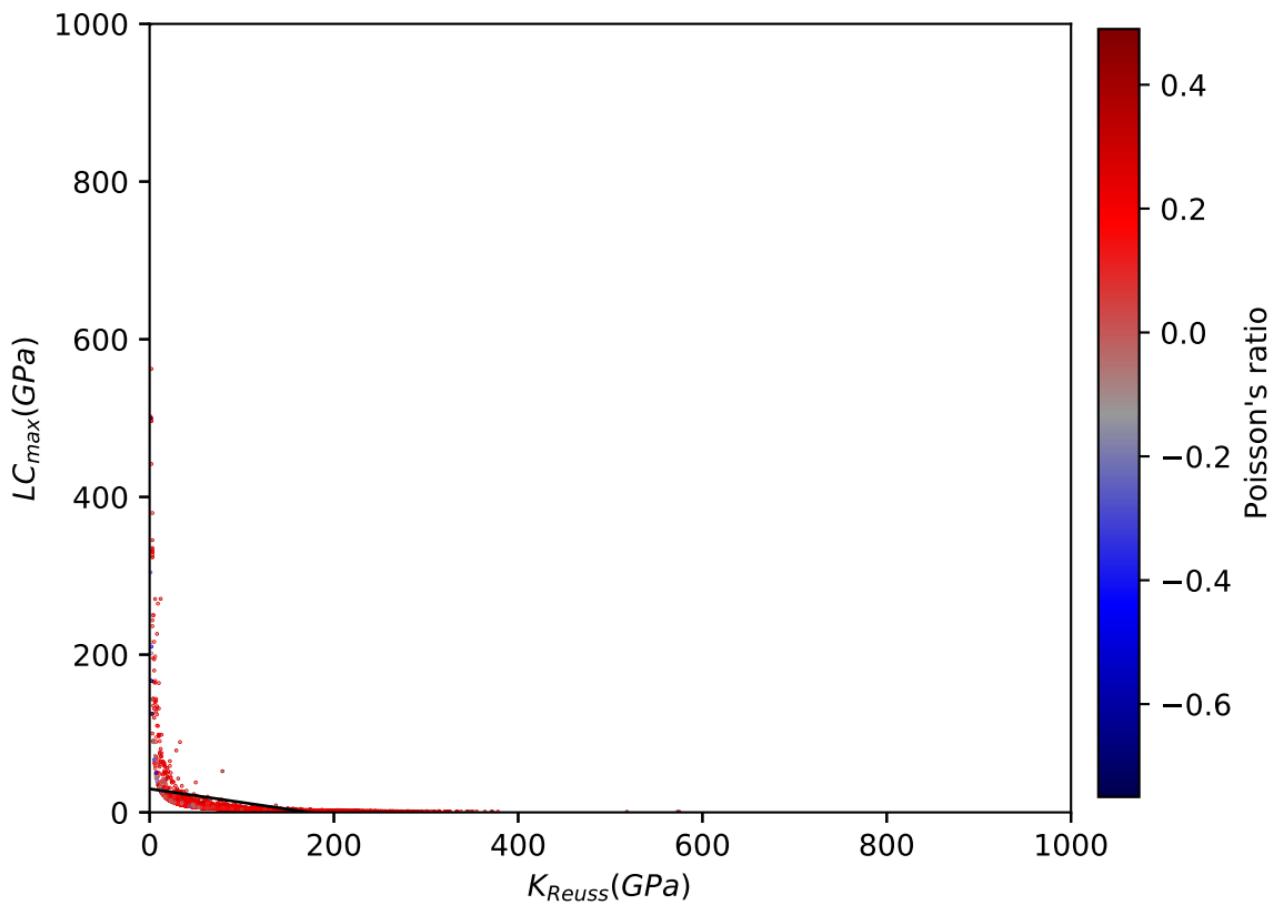
0.0

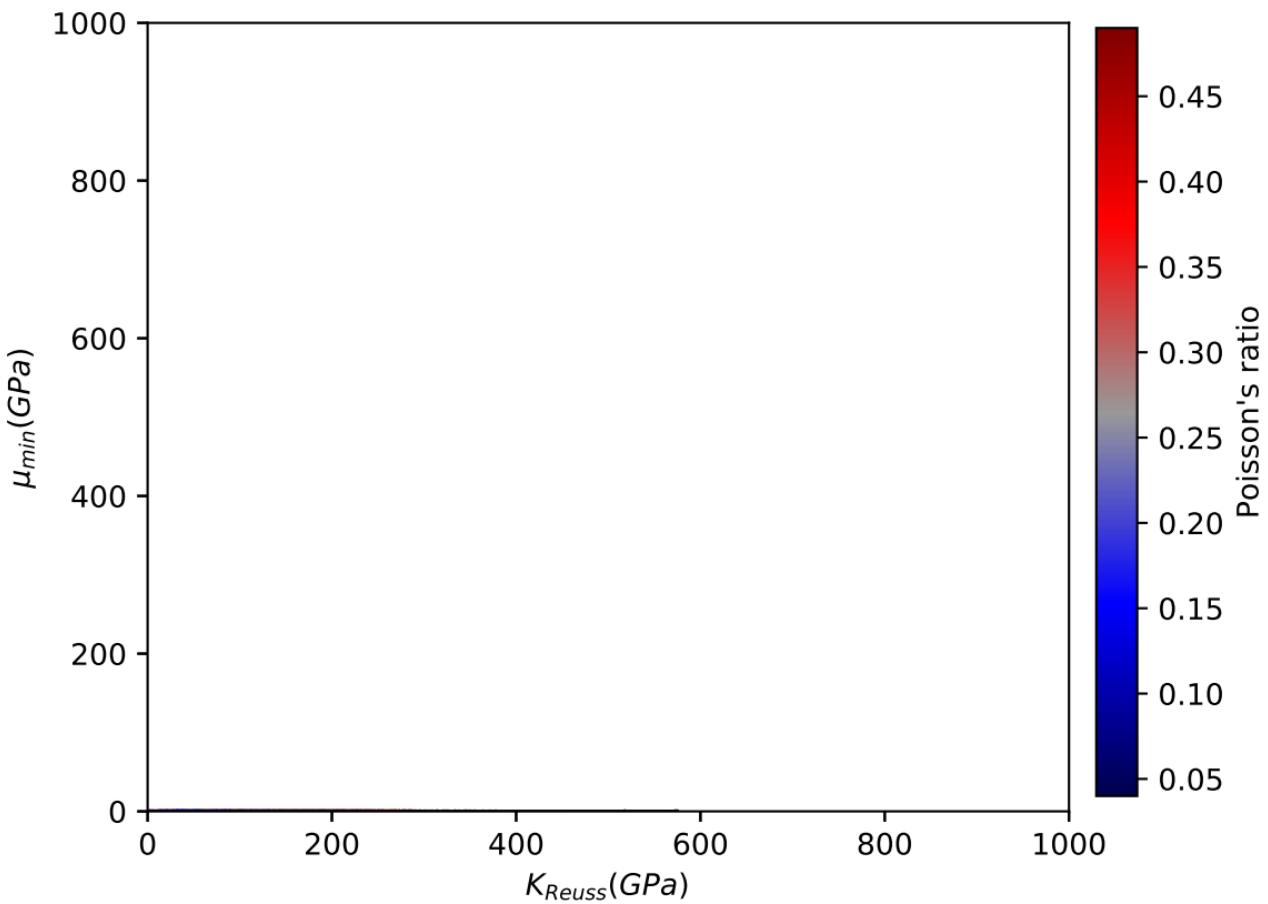
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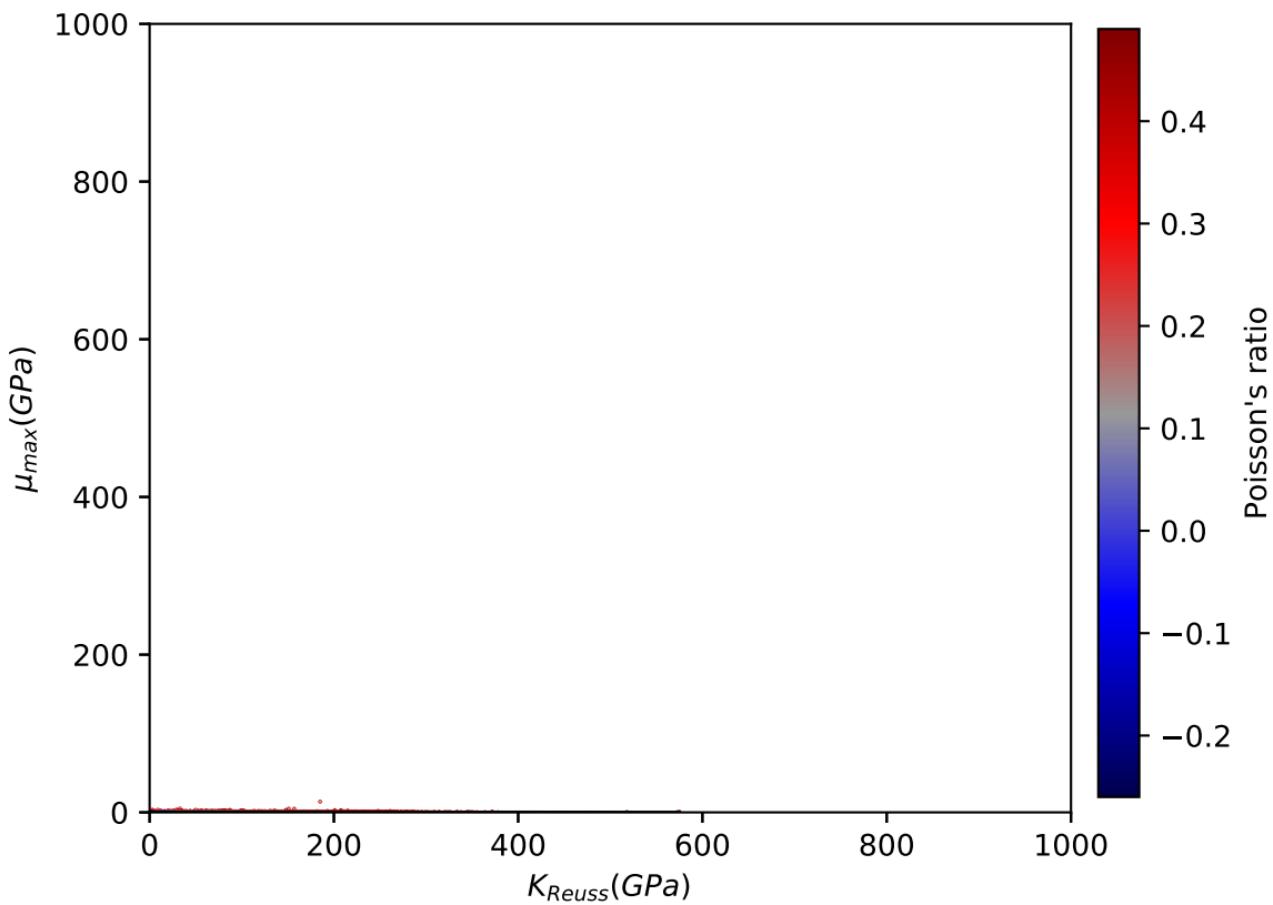
-0.4

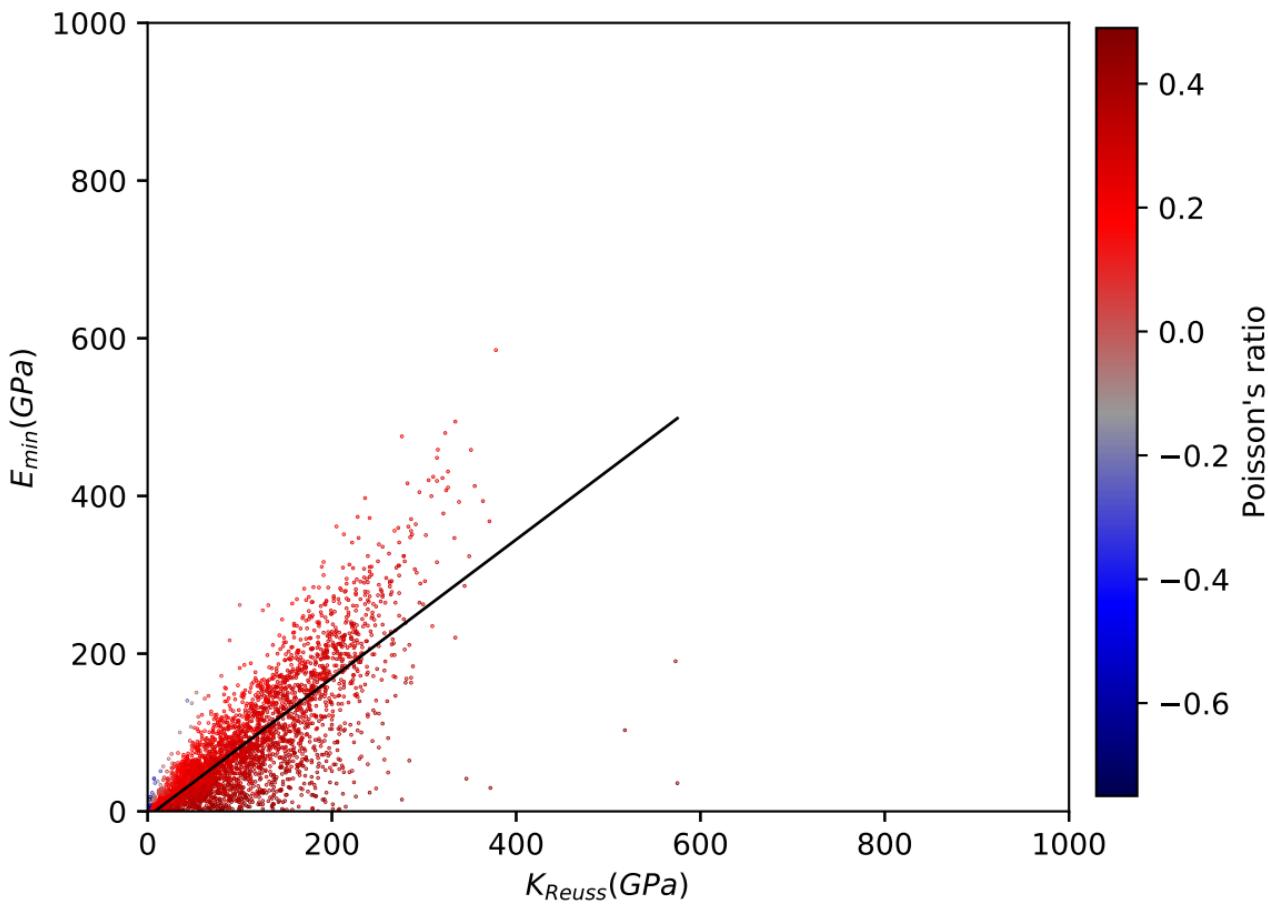
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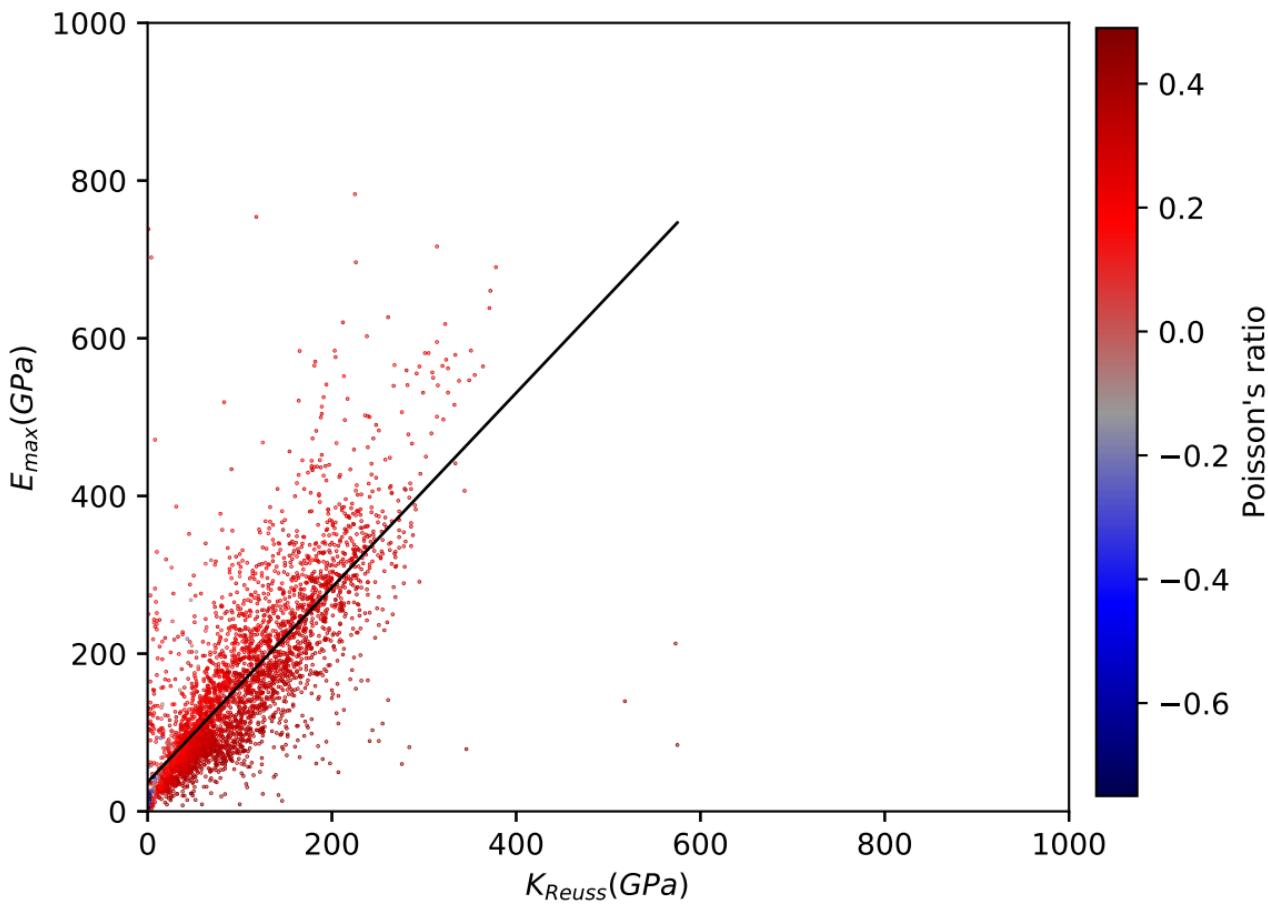


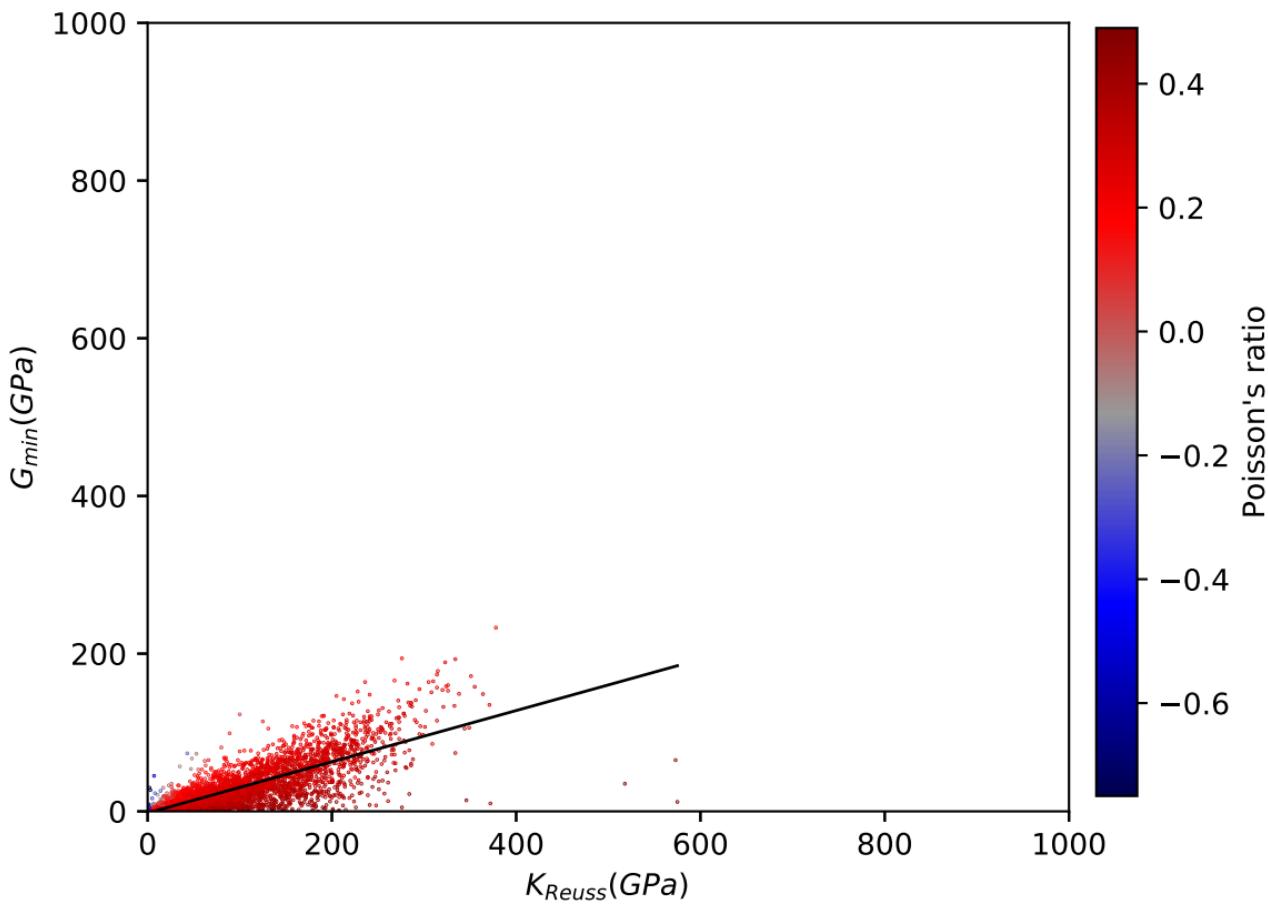


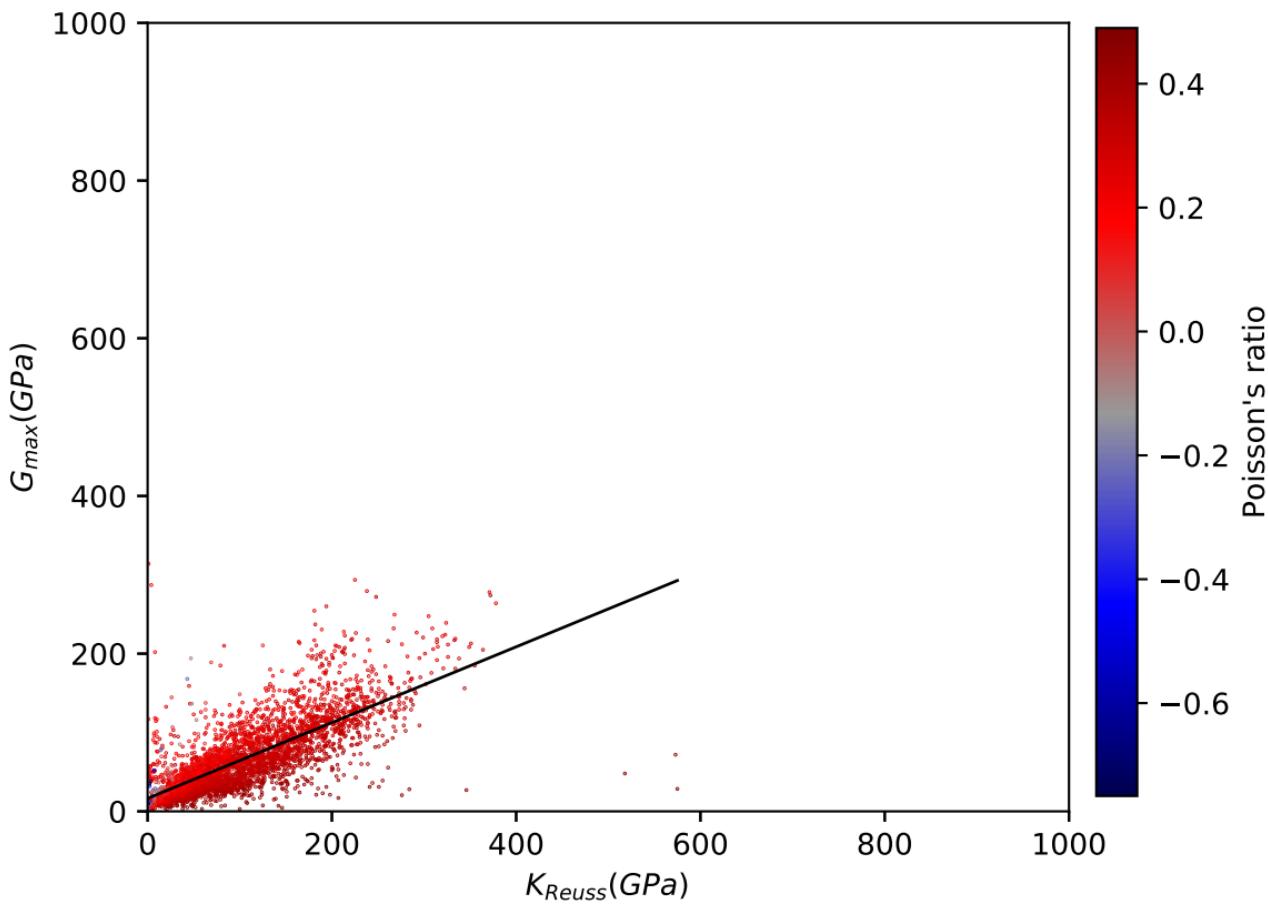


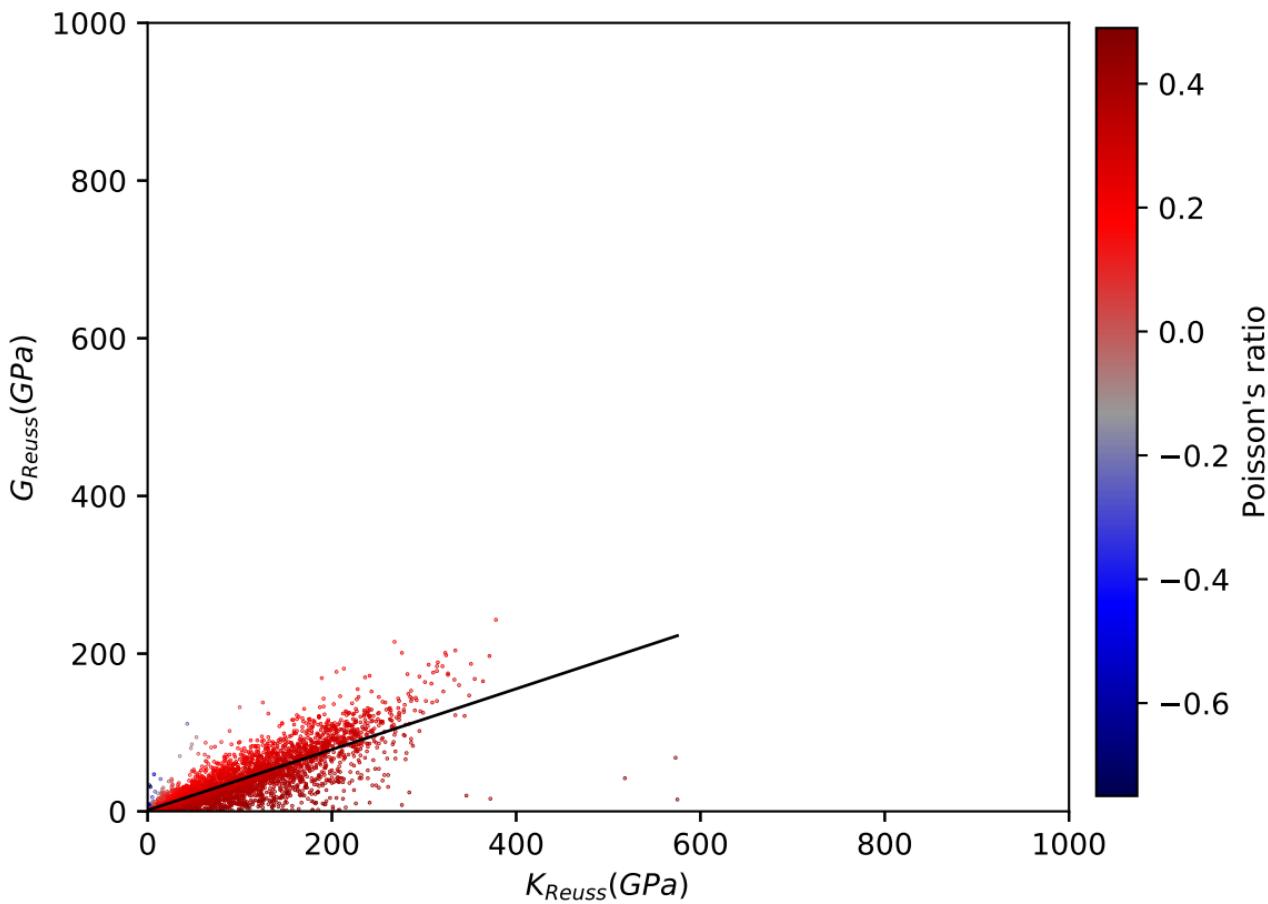


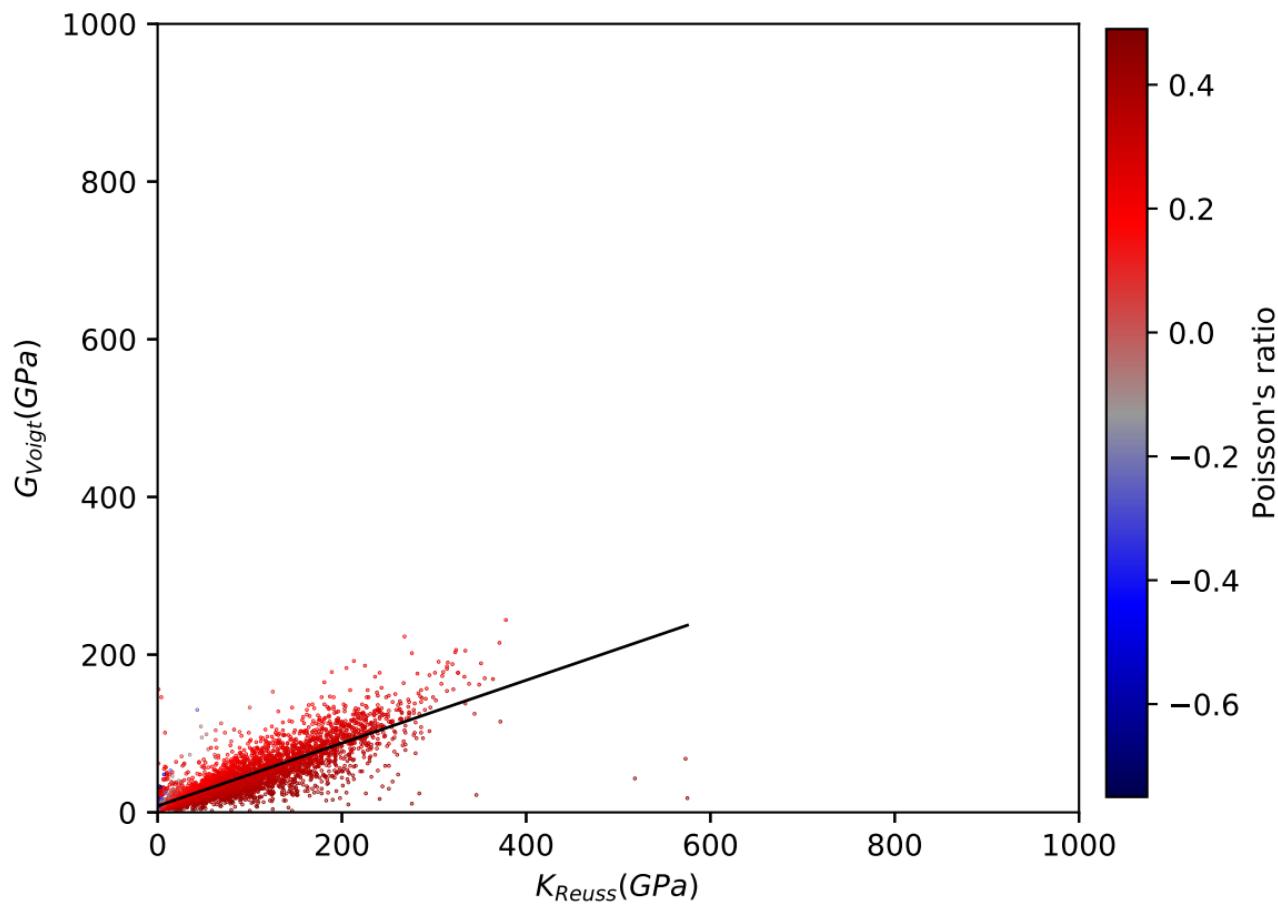












$G_{Voigt\ Reuss\ Hill}(GPa)$

1000

800

600

400

200

0

$K_{Reuss}(GPa)$



Poisson's ratio

0

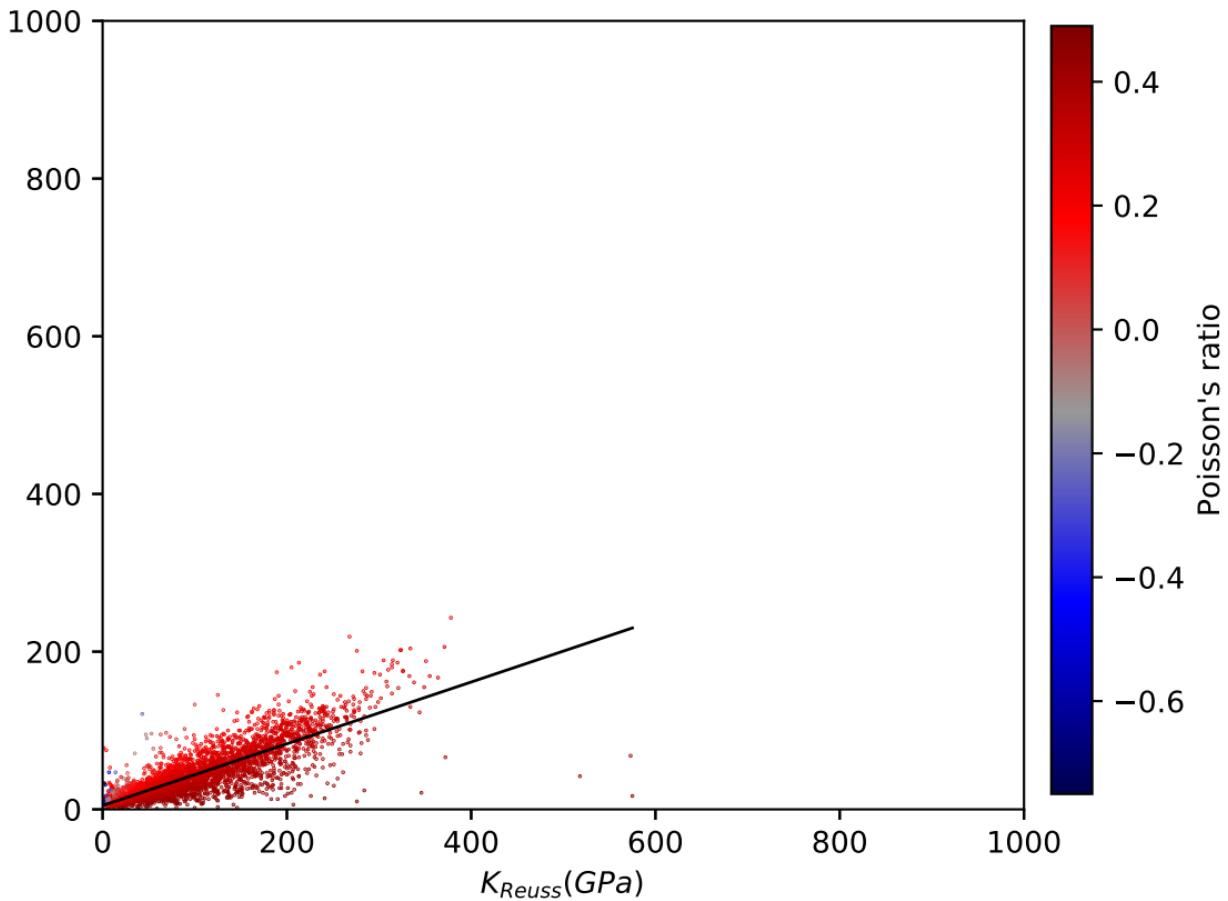
200

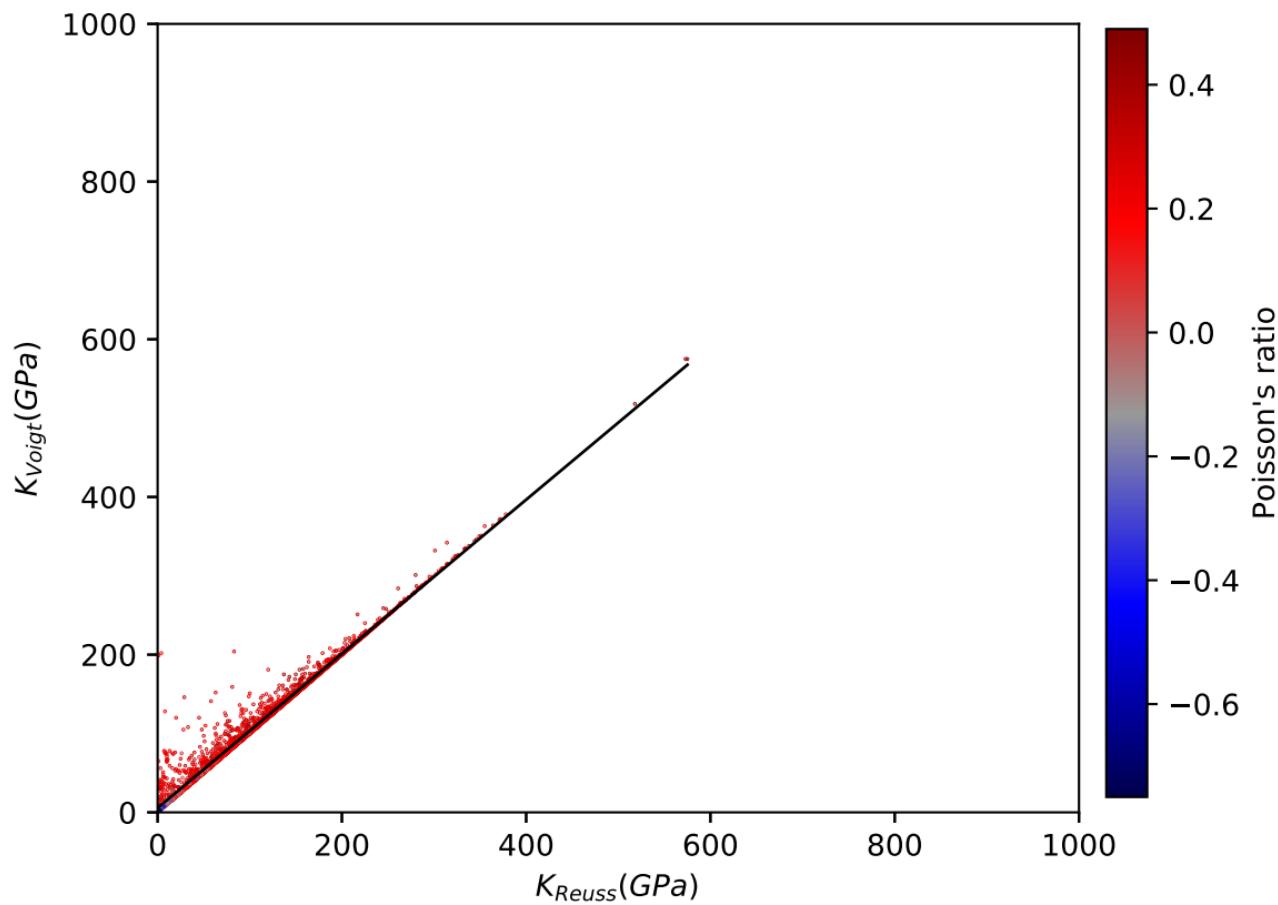
400

600

800

1000





$K_{\text{voigt Reuss Hill}}(\text{GPa})$

1000

800

600

400

200

0

200

400

600

800

1000

$K_{\text{Reuss}}(\text{GPa})$



Poisson's ratio

0.4

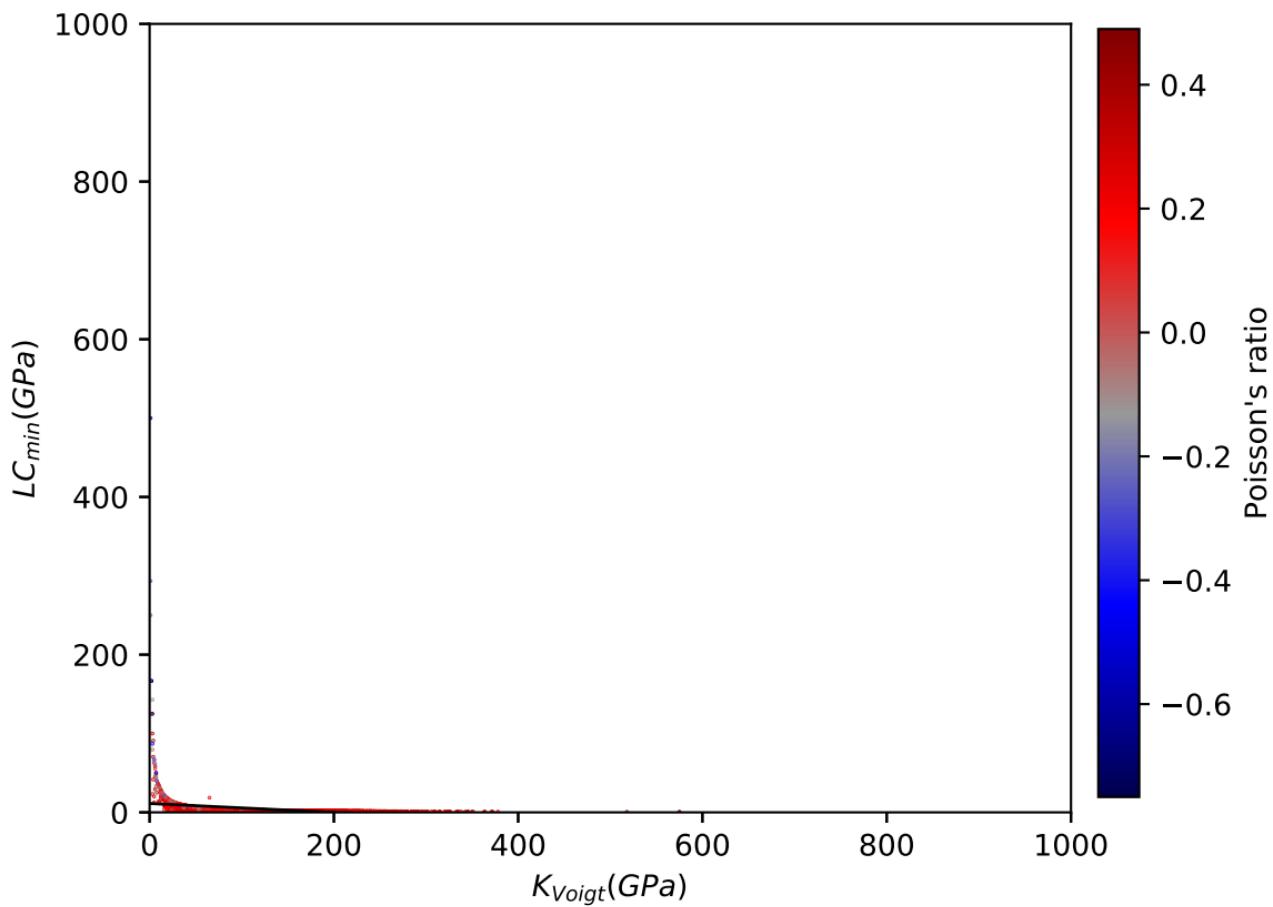
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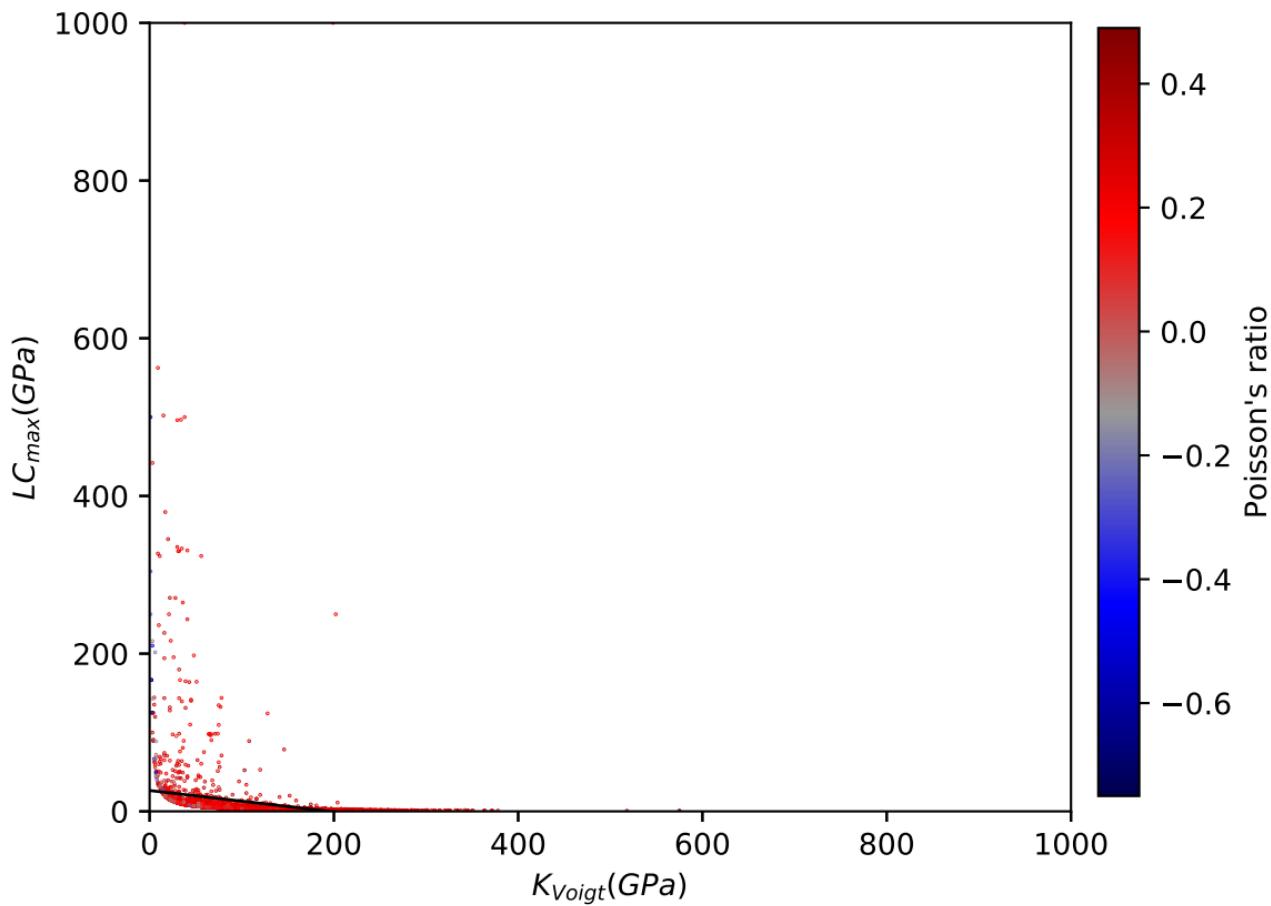
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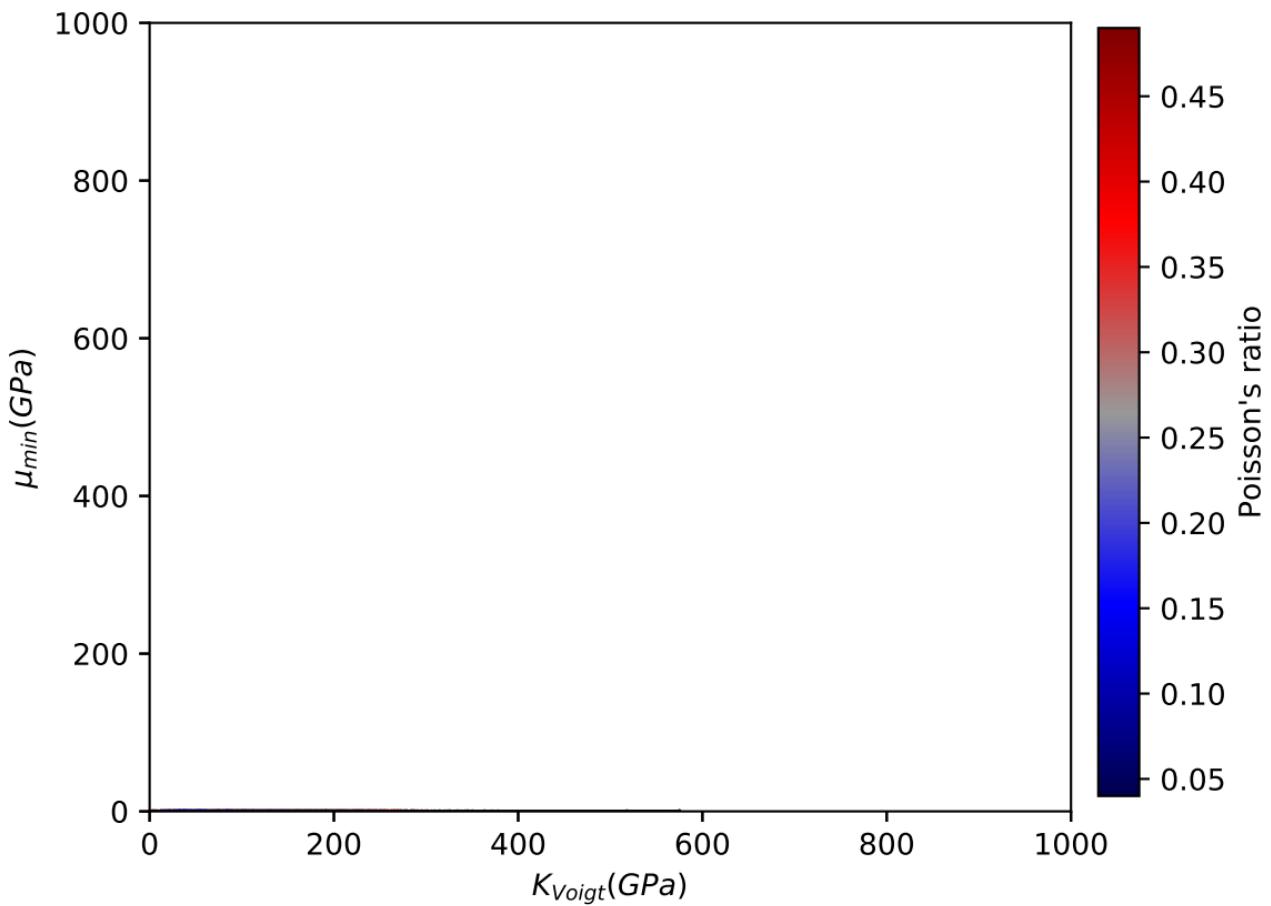
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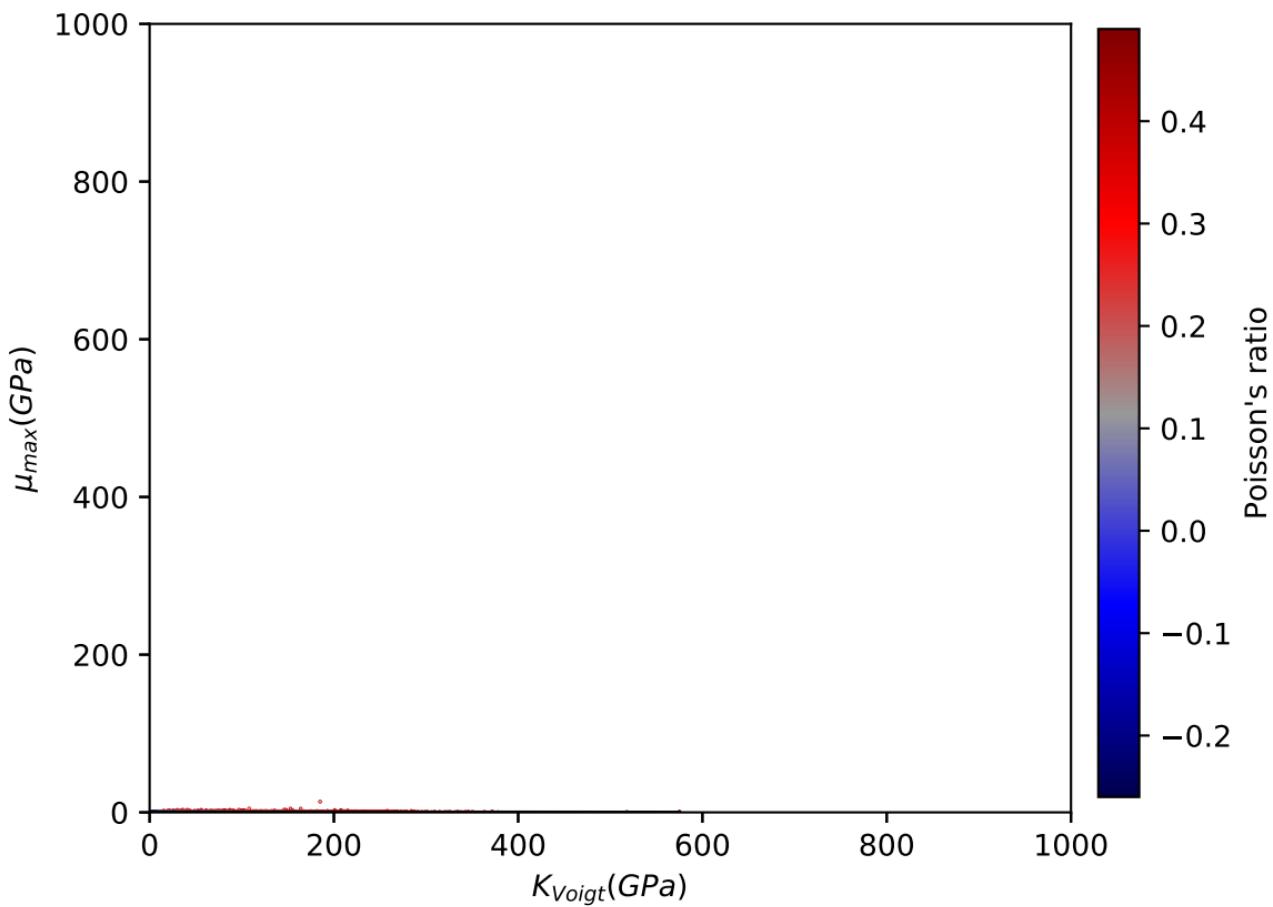
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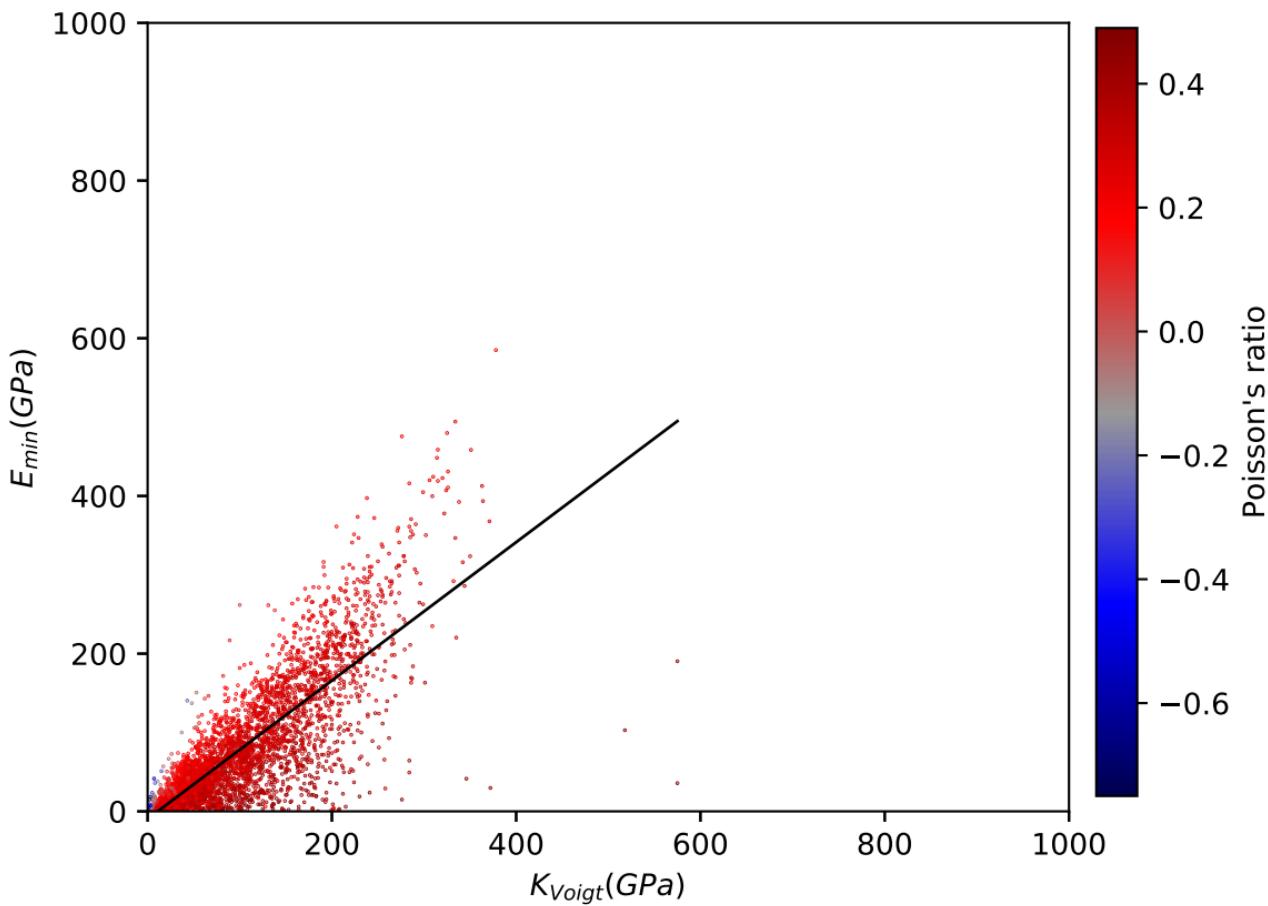
-0.6

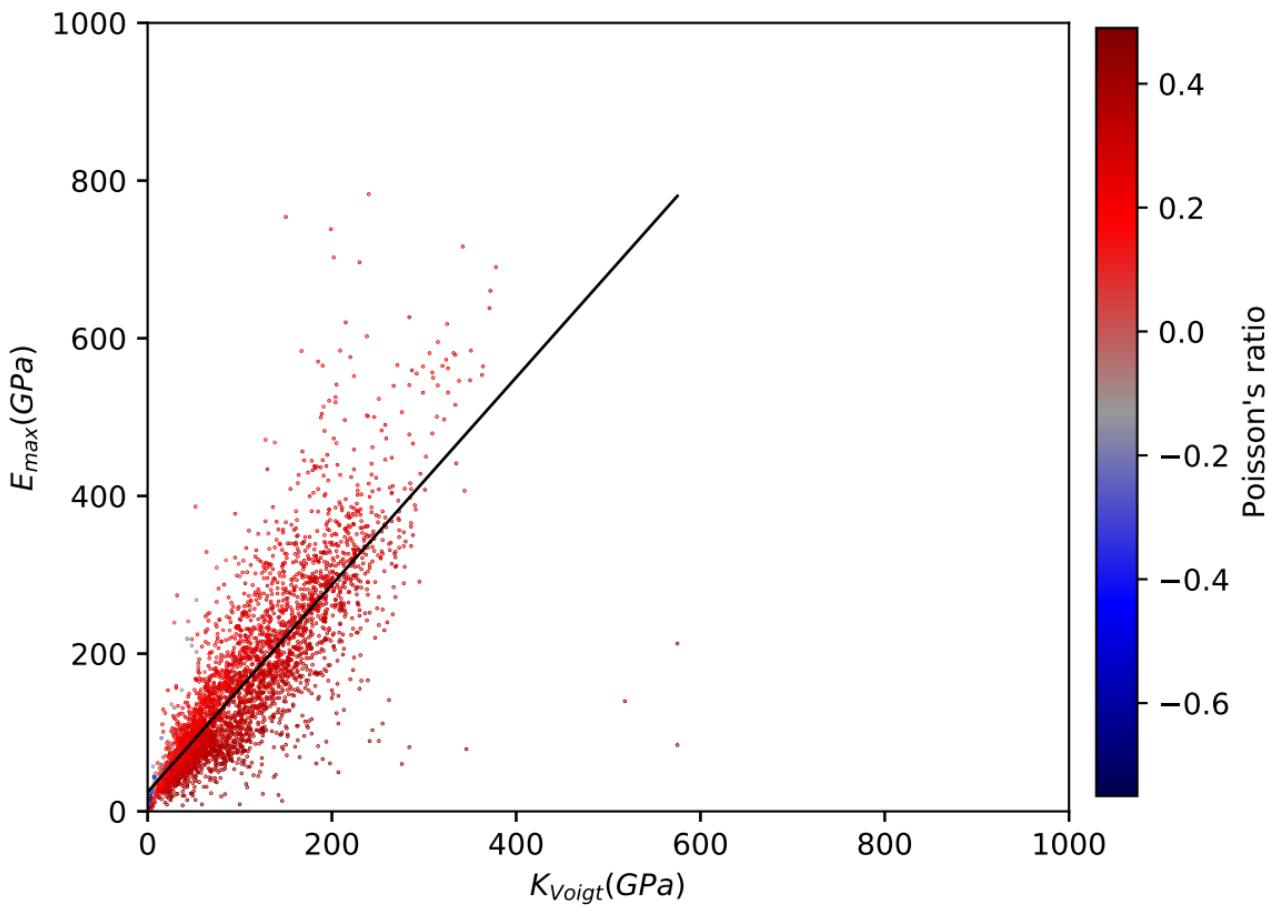


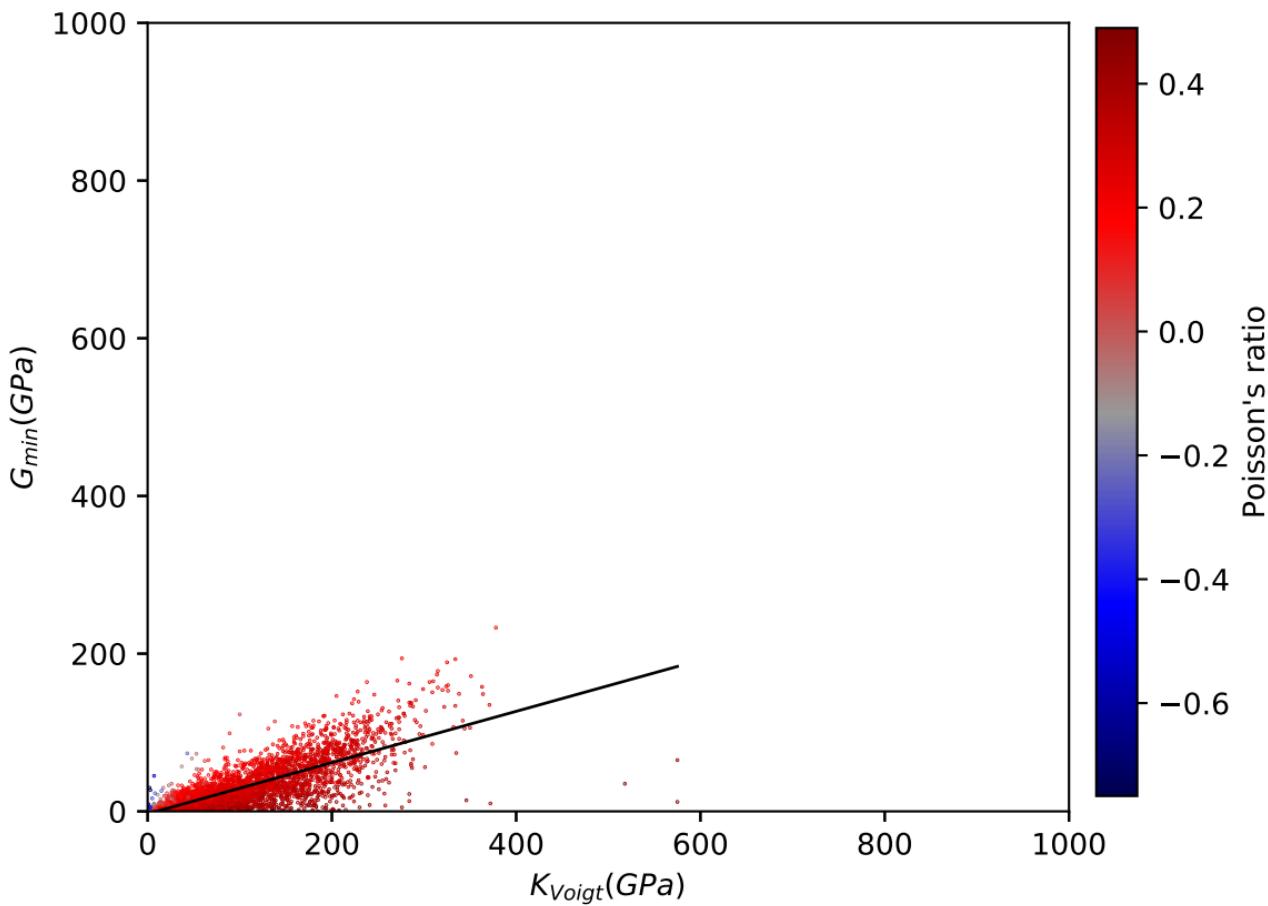


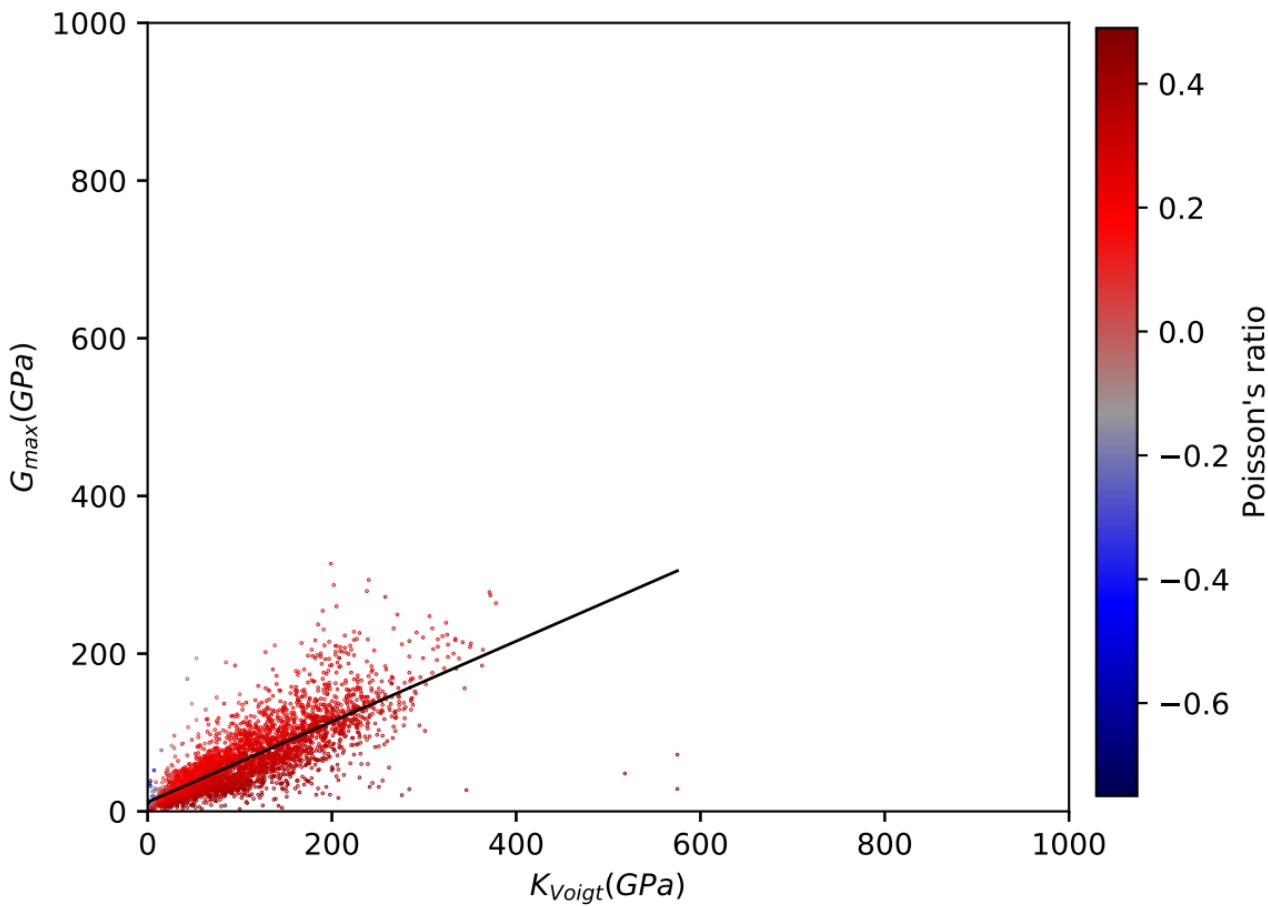


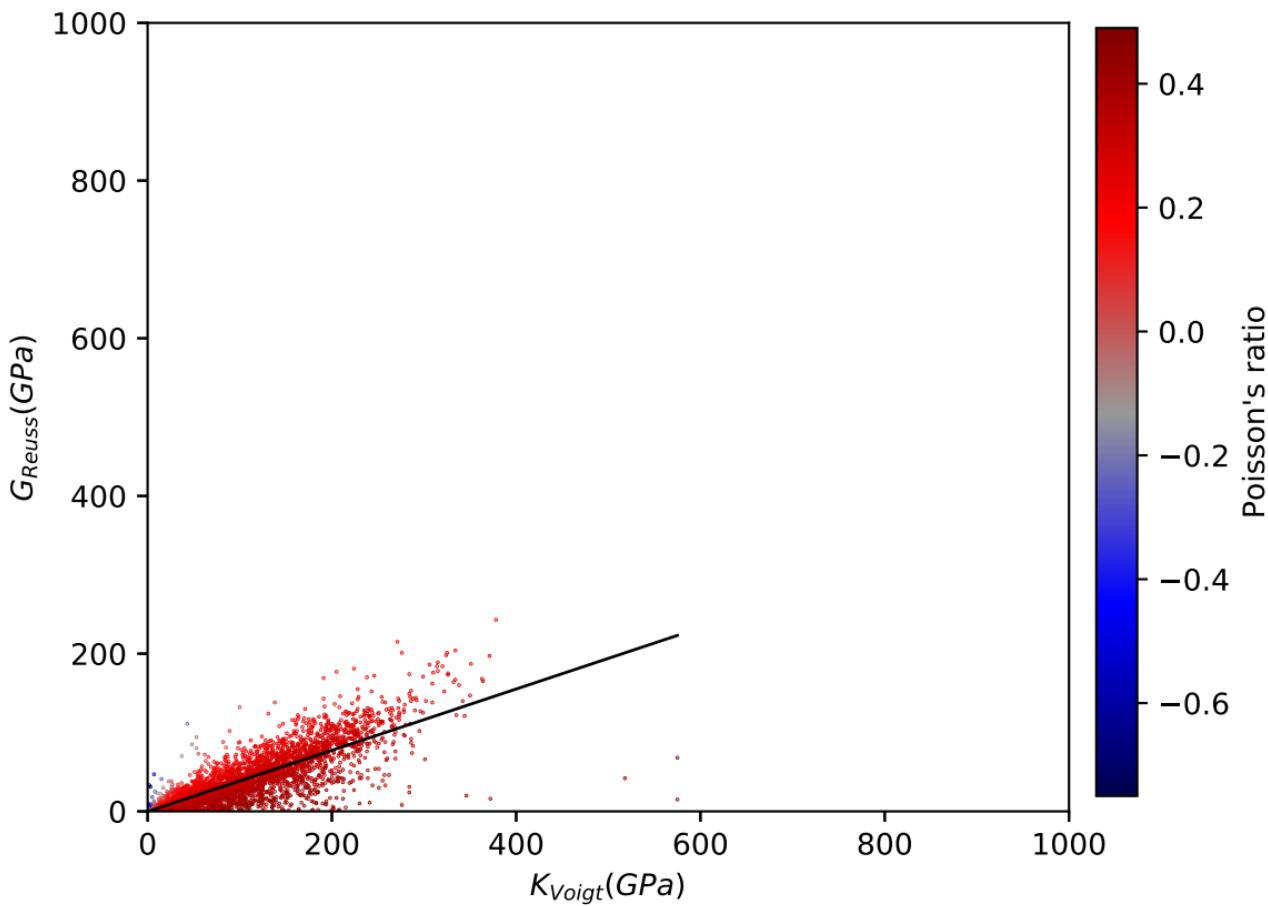


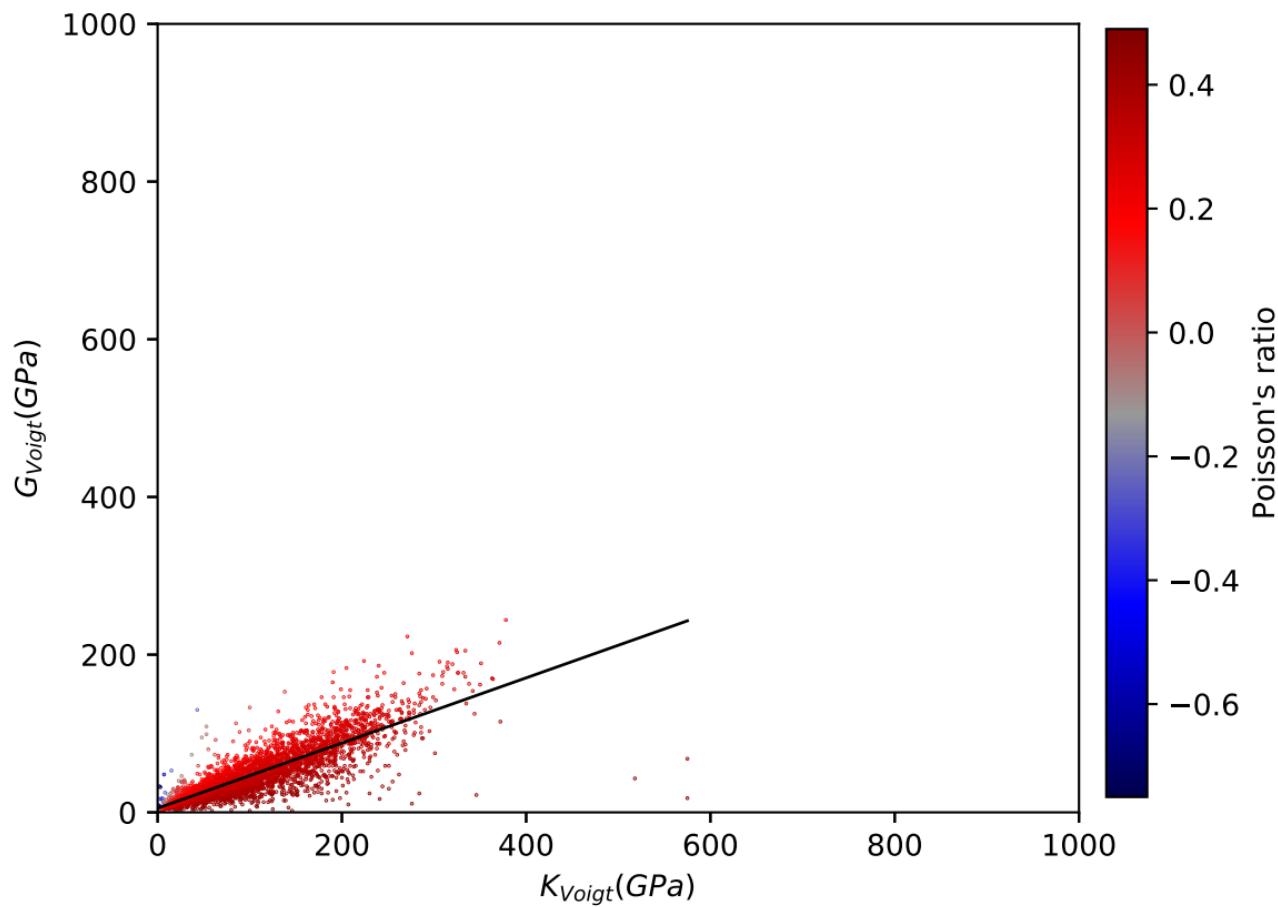












$G_{Voigt\text{ Reuss\ Hill}}(GPa)$

1000

800

600

400

200

0

200

400

600

800

1000

$K_{Voigt}(GPa)$

Poisson's ratio

0.4

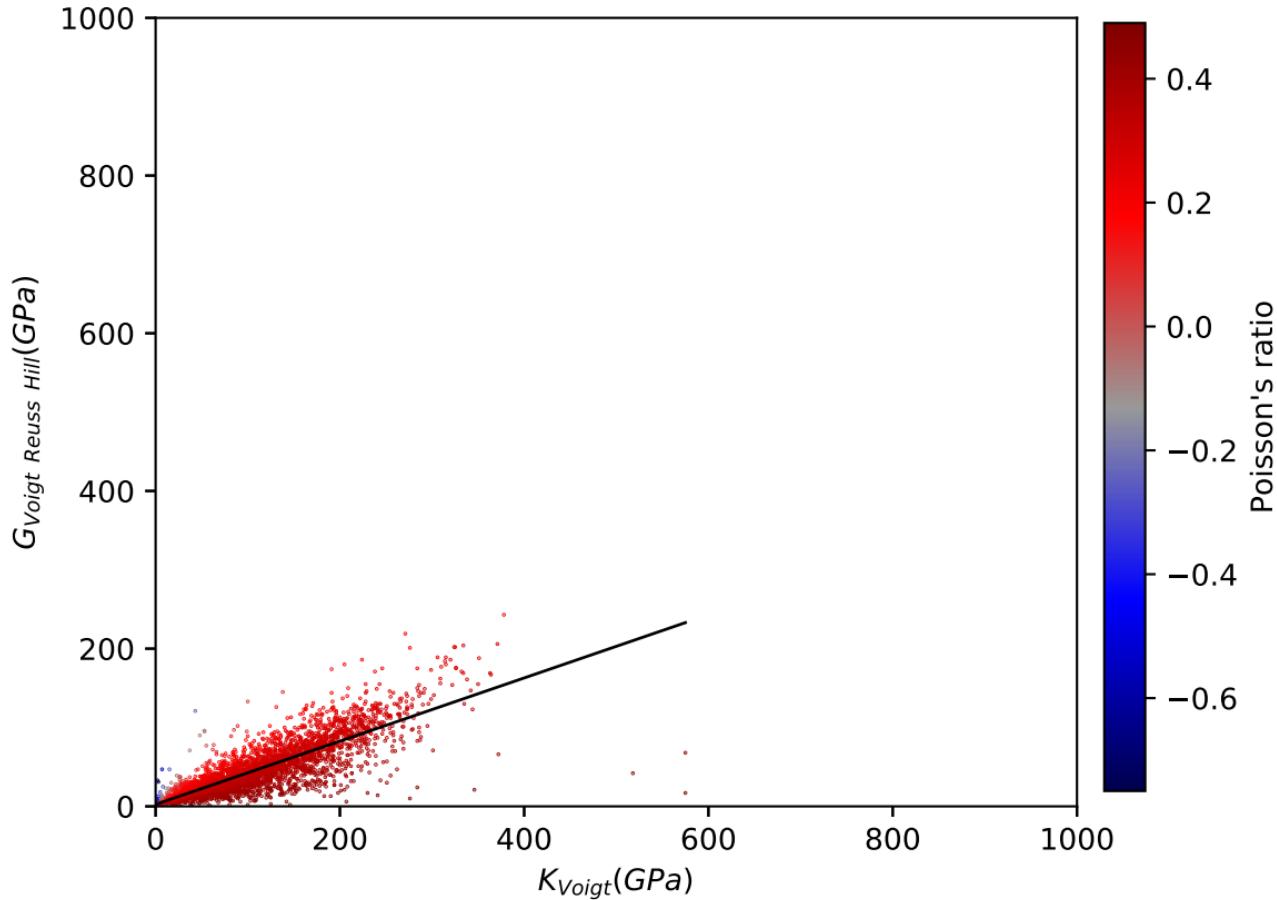
0.2

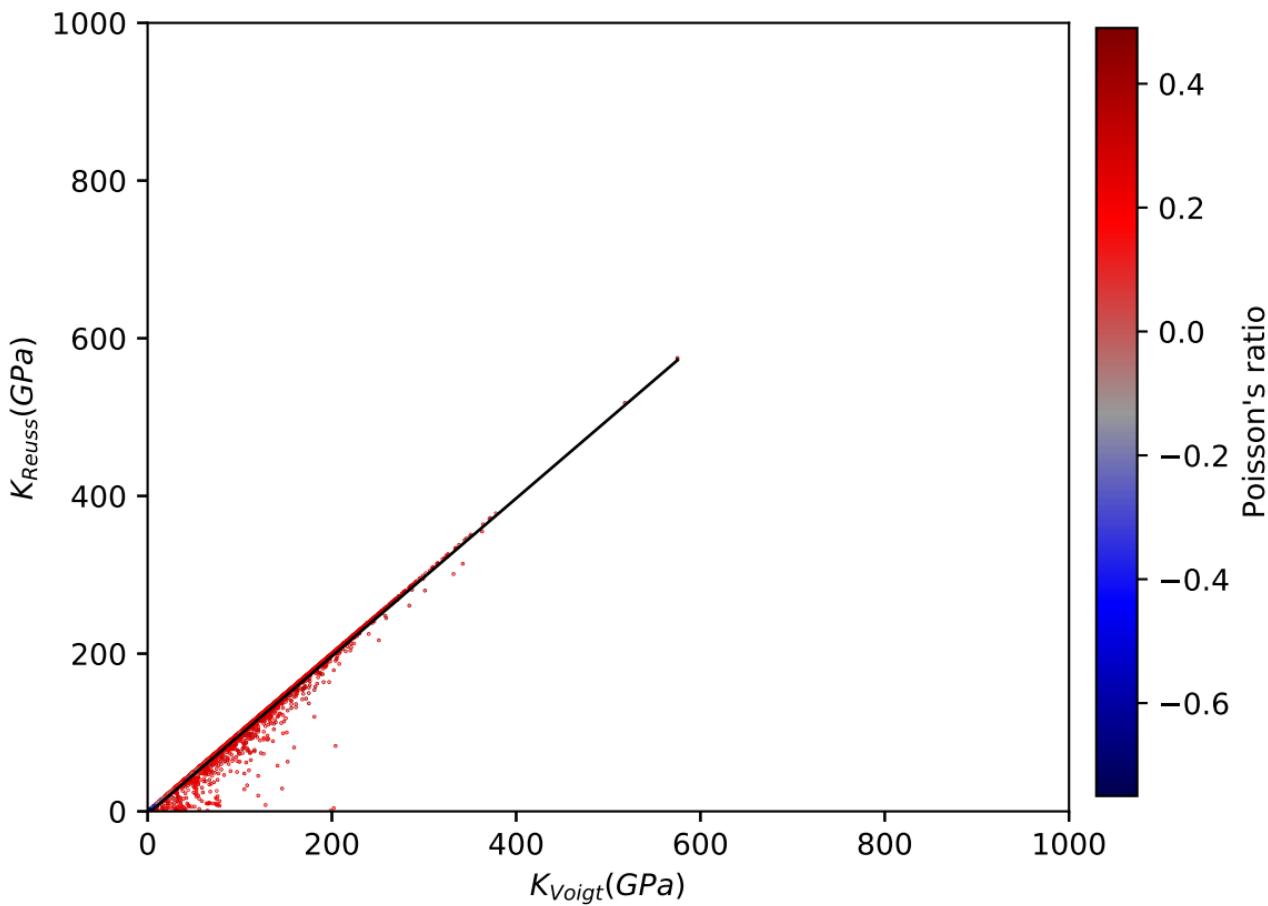
0.0

-0.2

-0.4

-0.6





$K_{Voigt\text{ Reuss\ Hill}}(GPa)$ 

1000

800

600

400

200

0

200

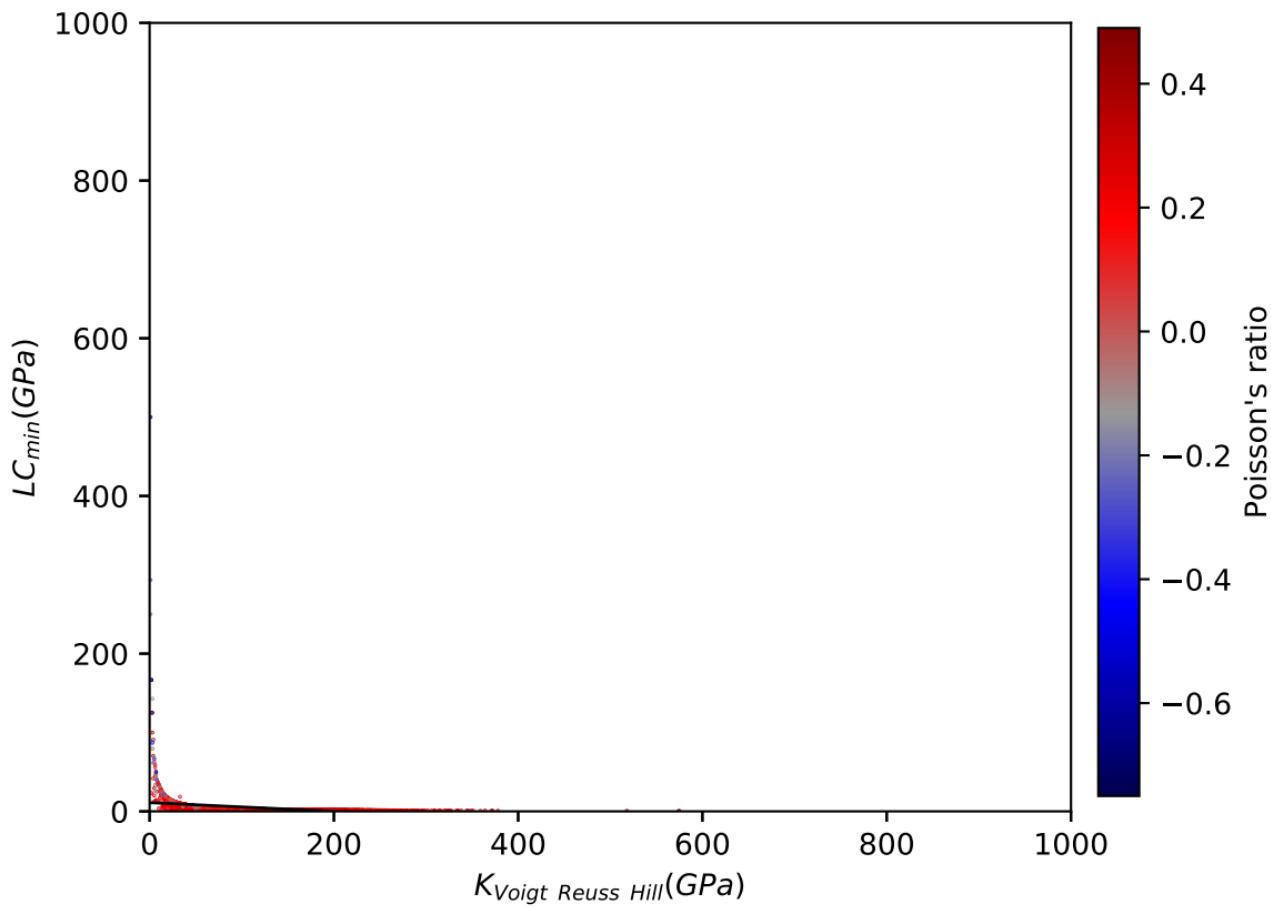
400

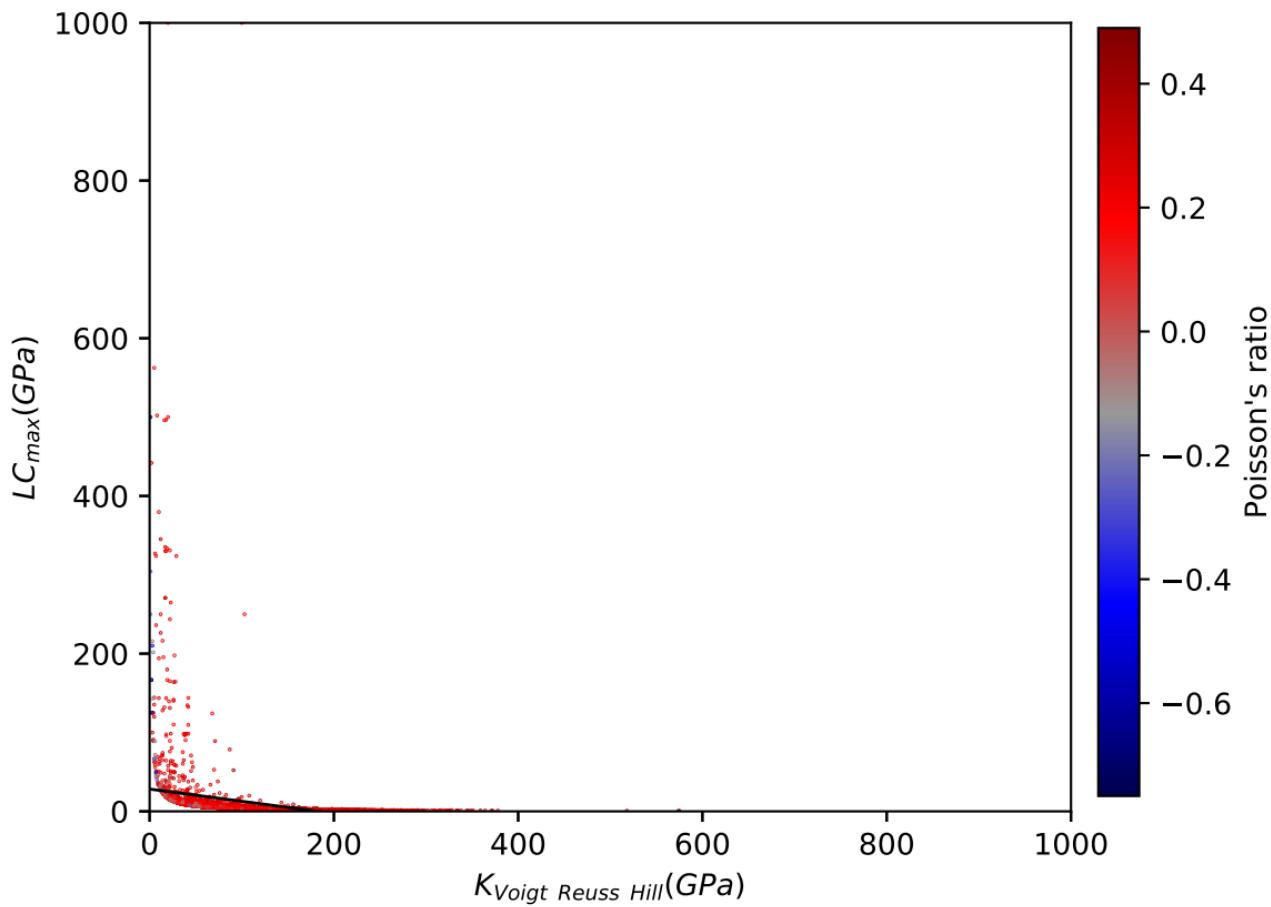
800

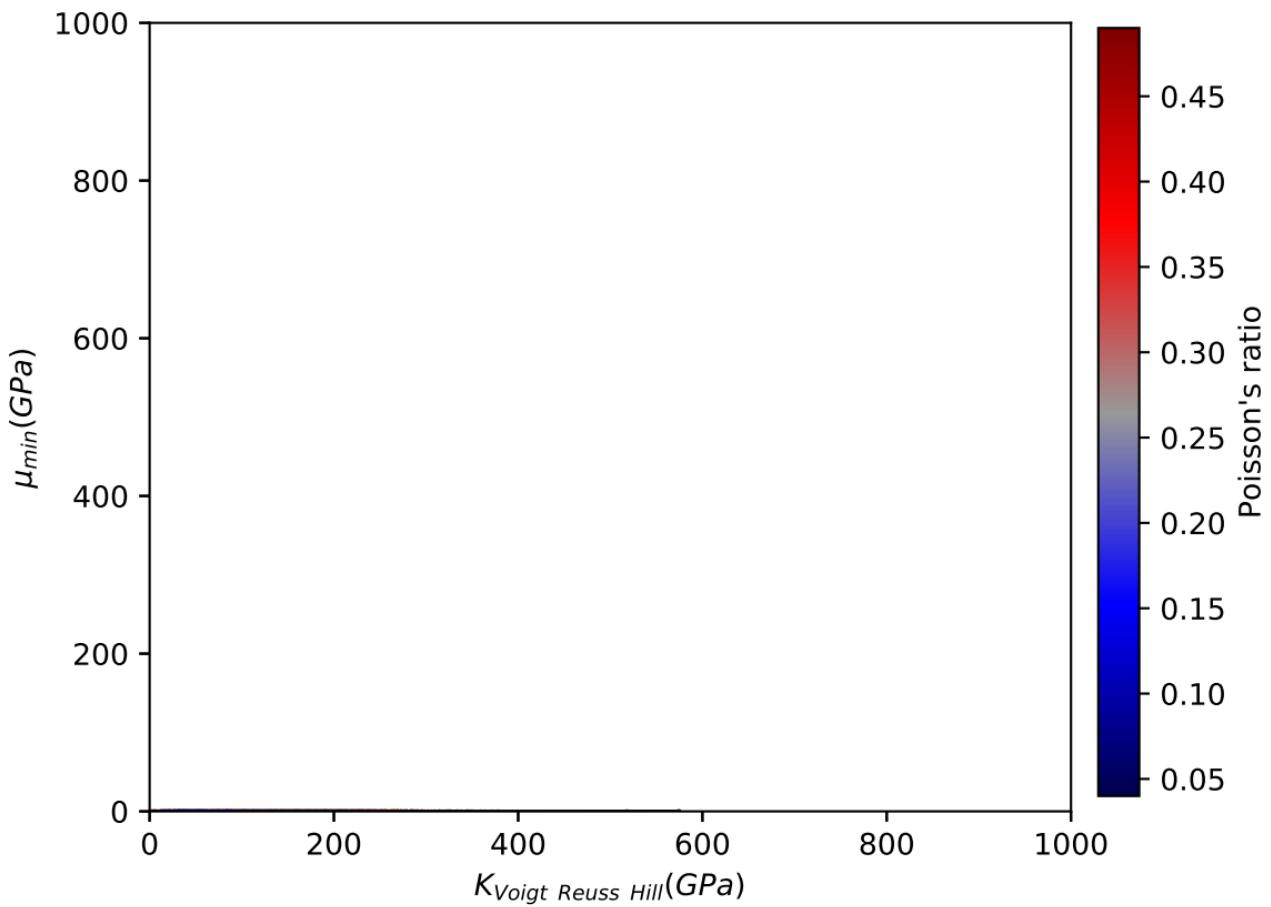
1000

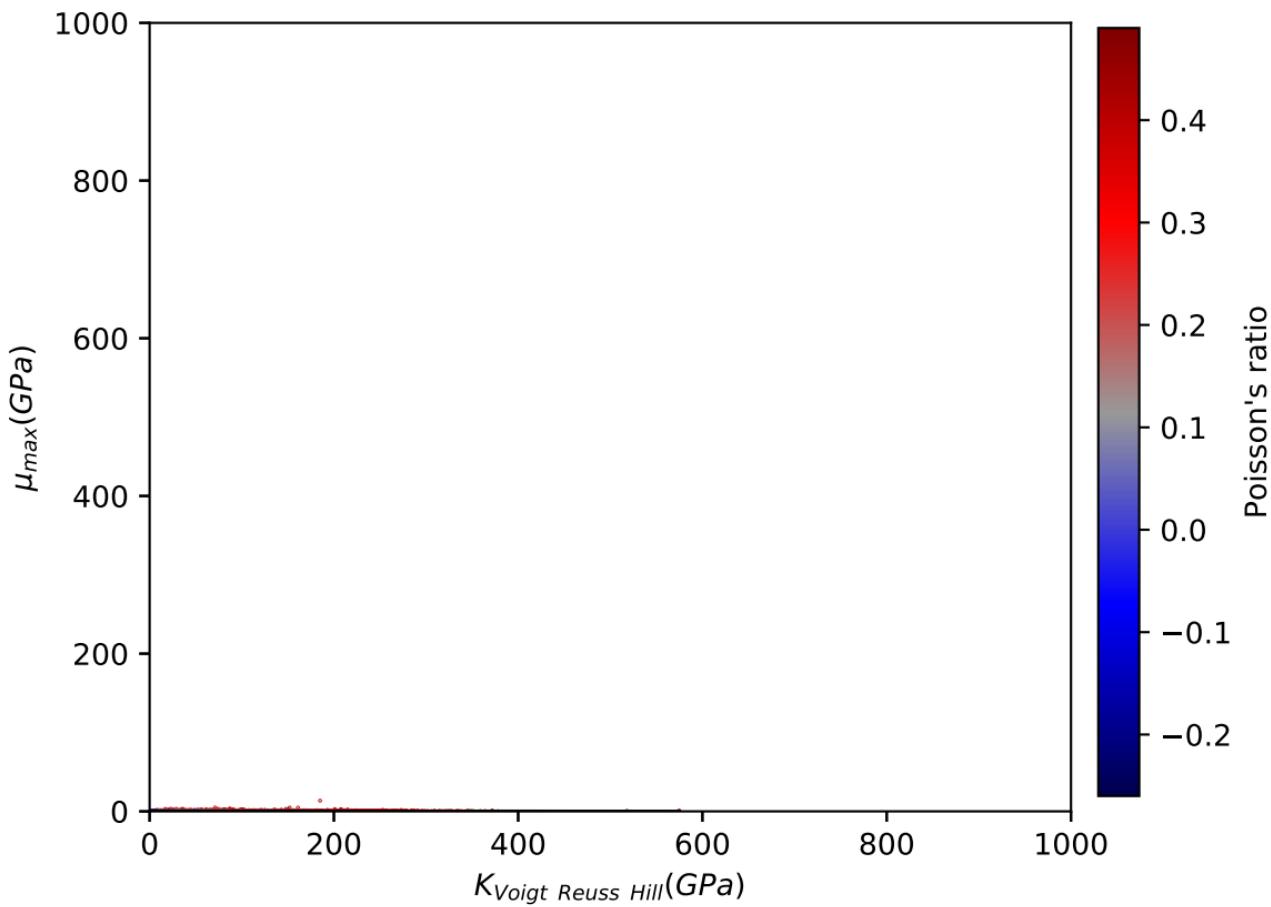
 $K_{Voigt}(GPa)$ 

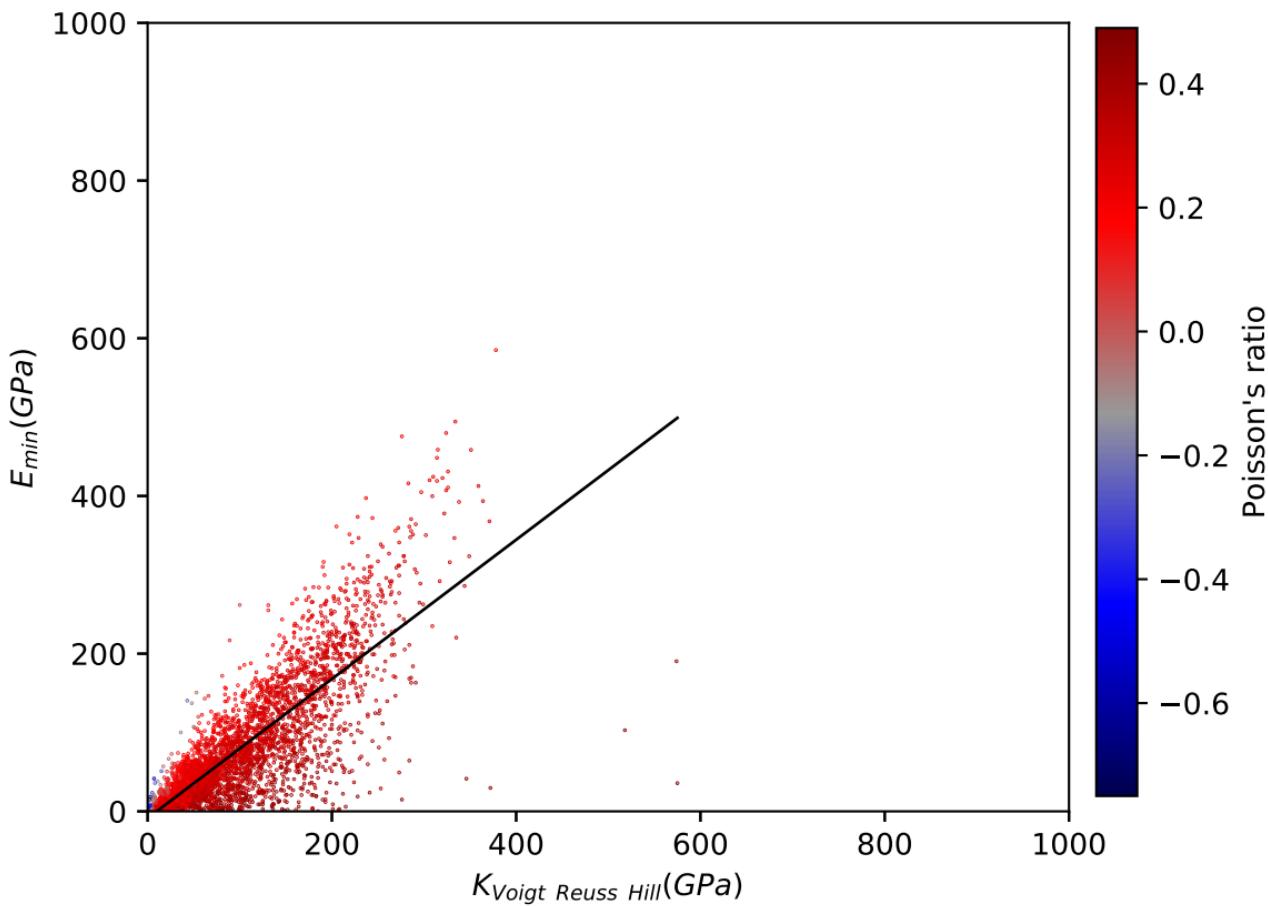
0.4  
0.2  
0.0  
-0.2  
-0.4  
-0.6

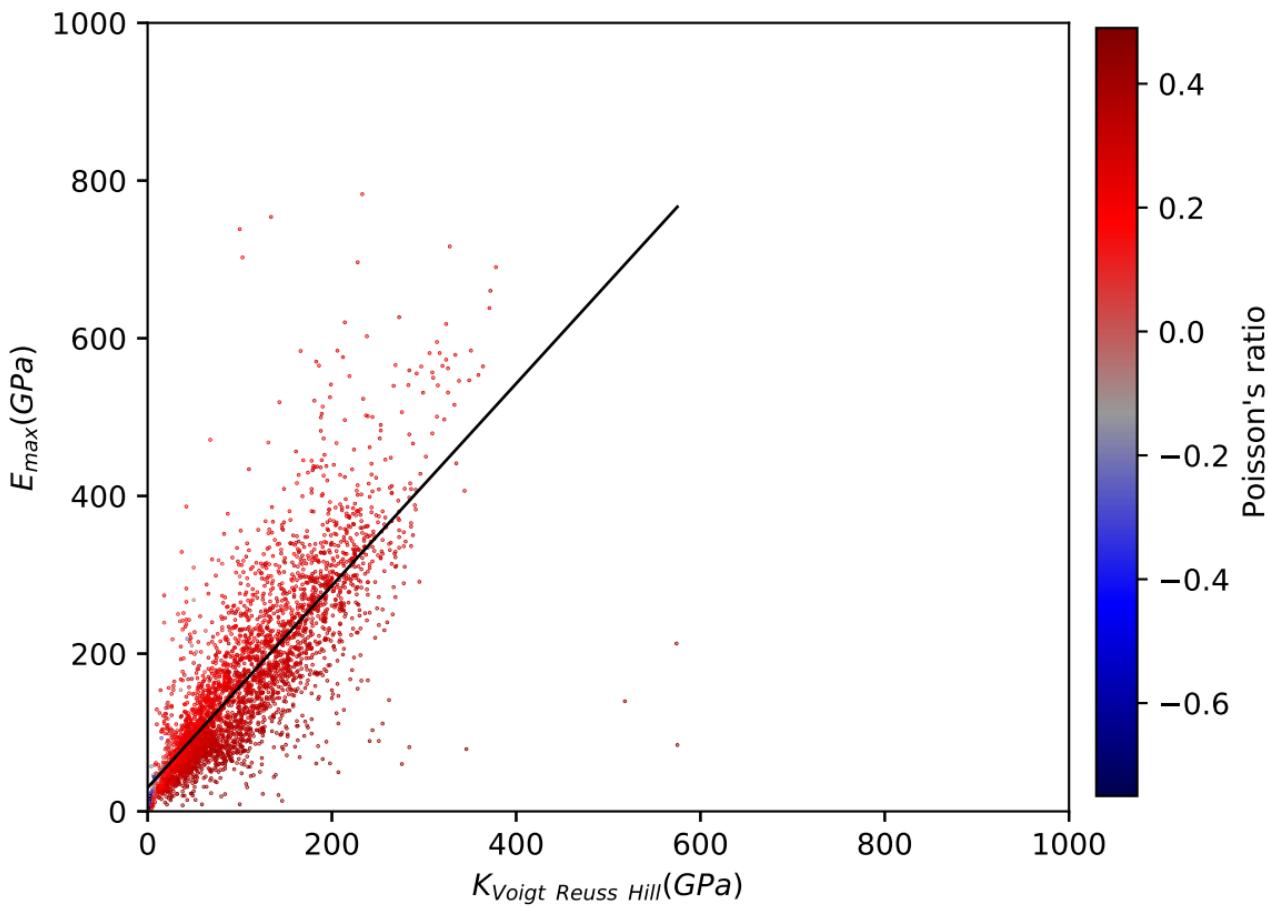


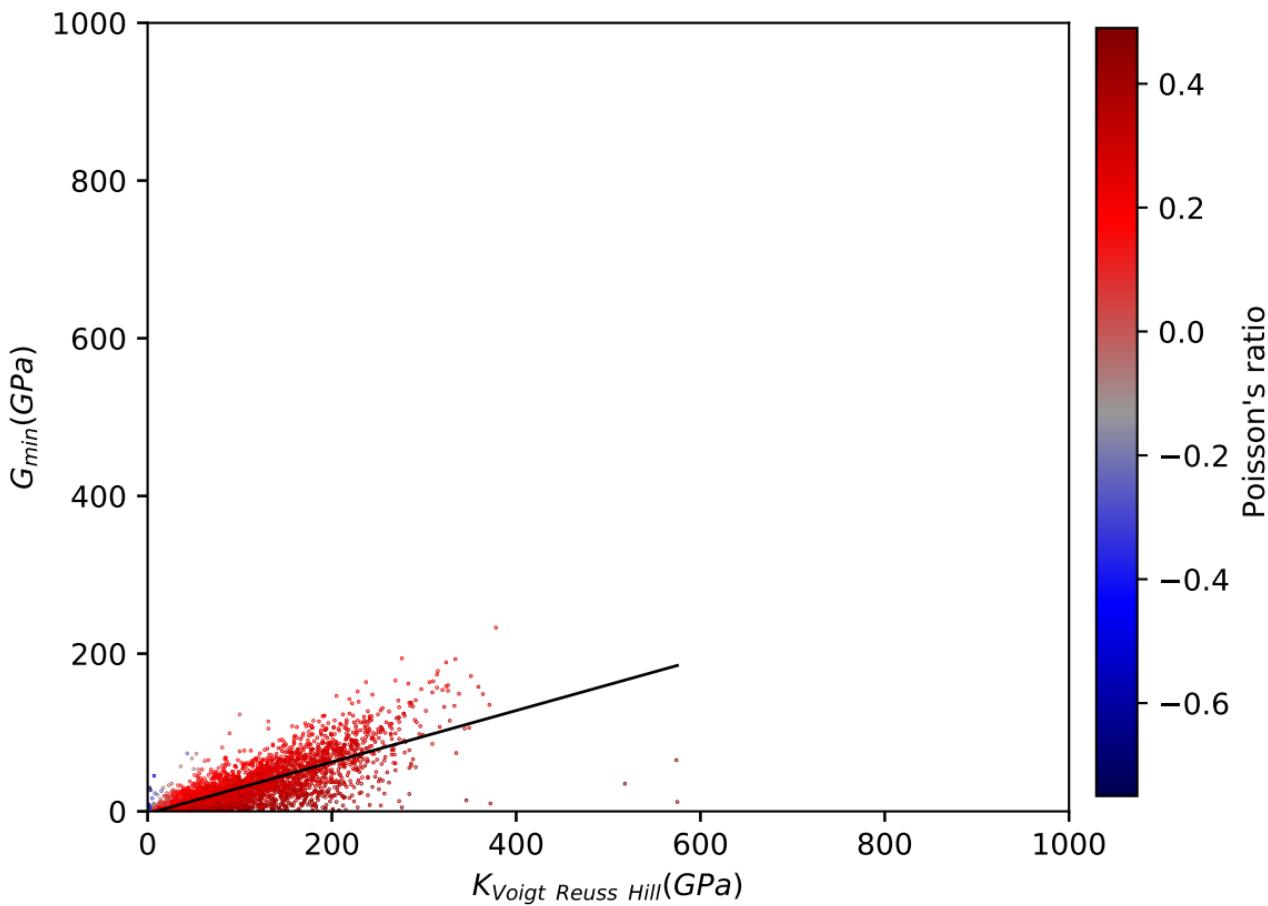


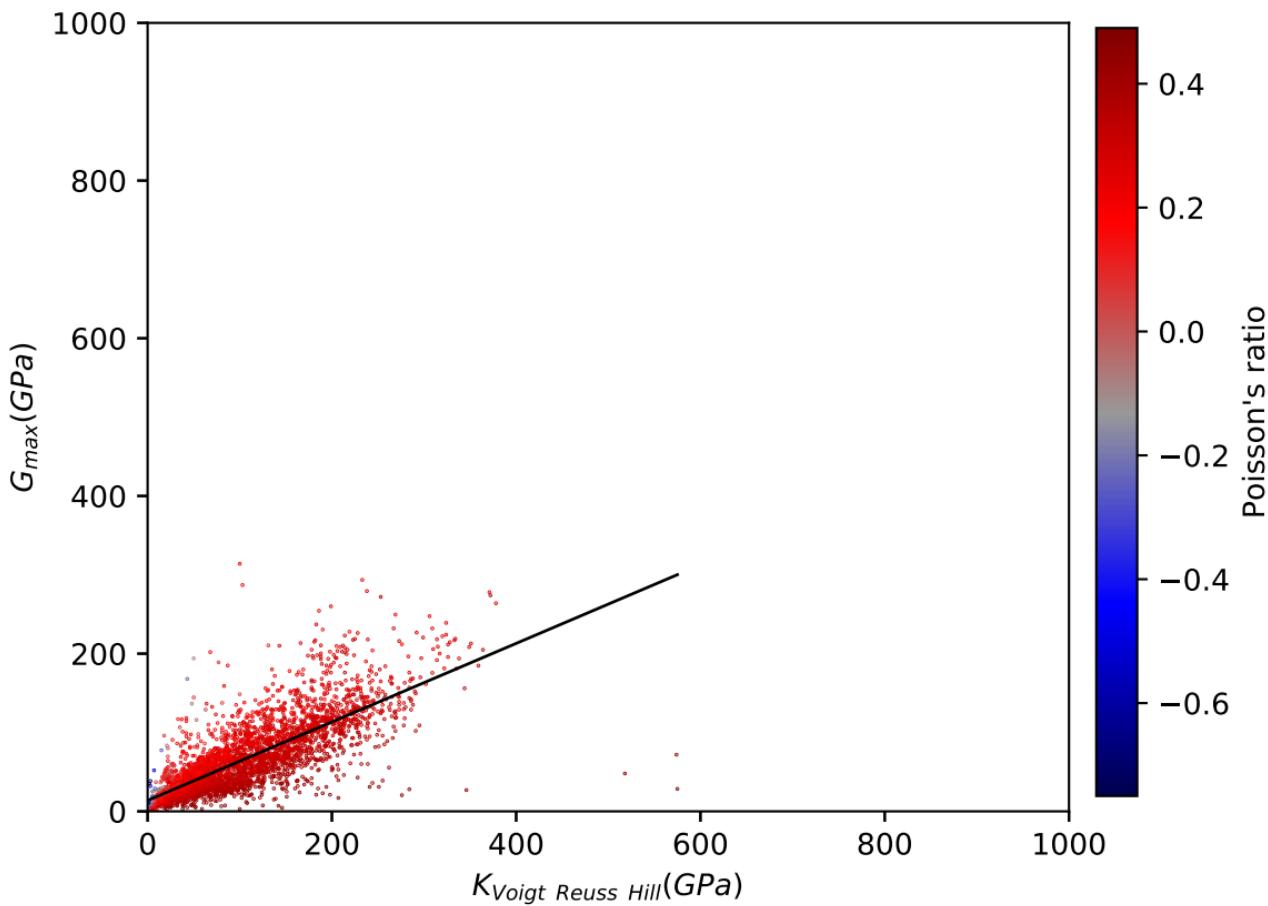


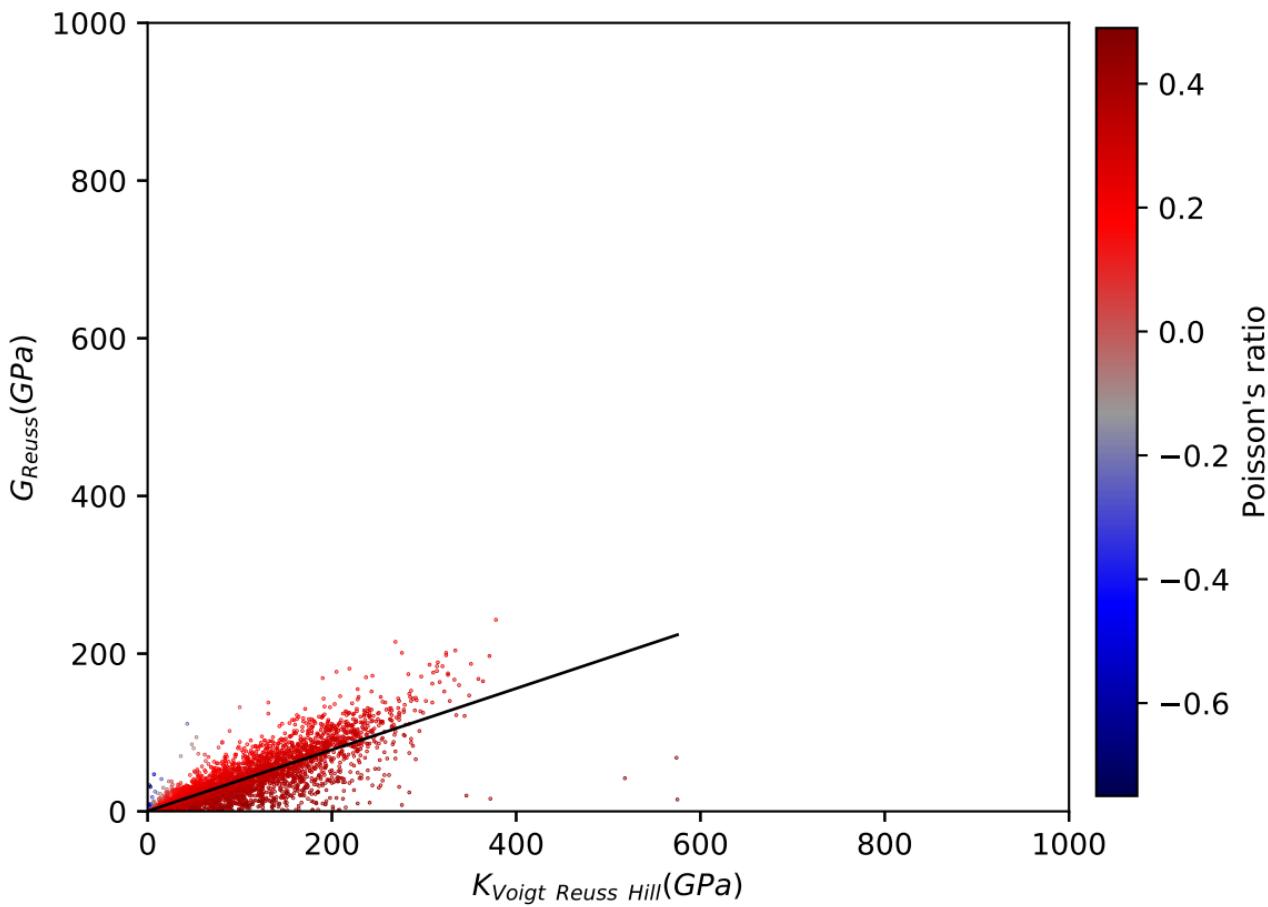


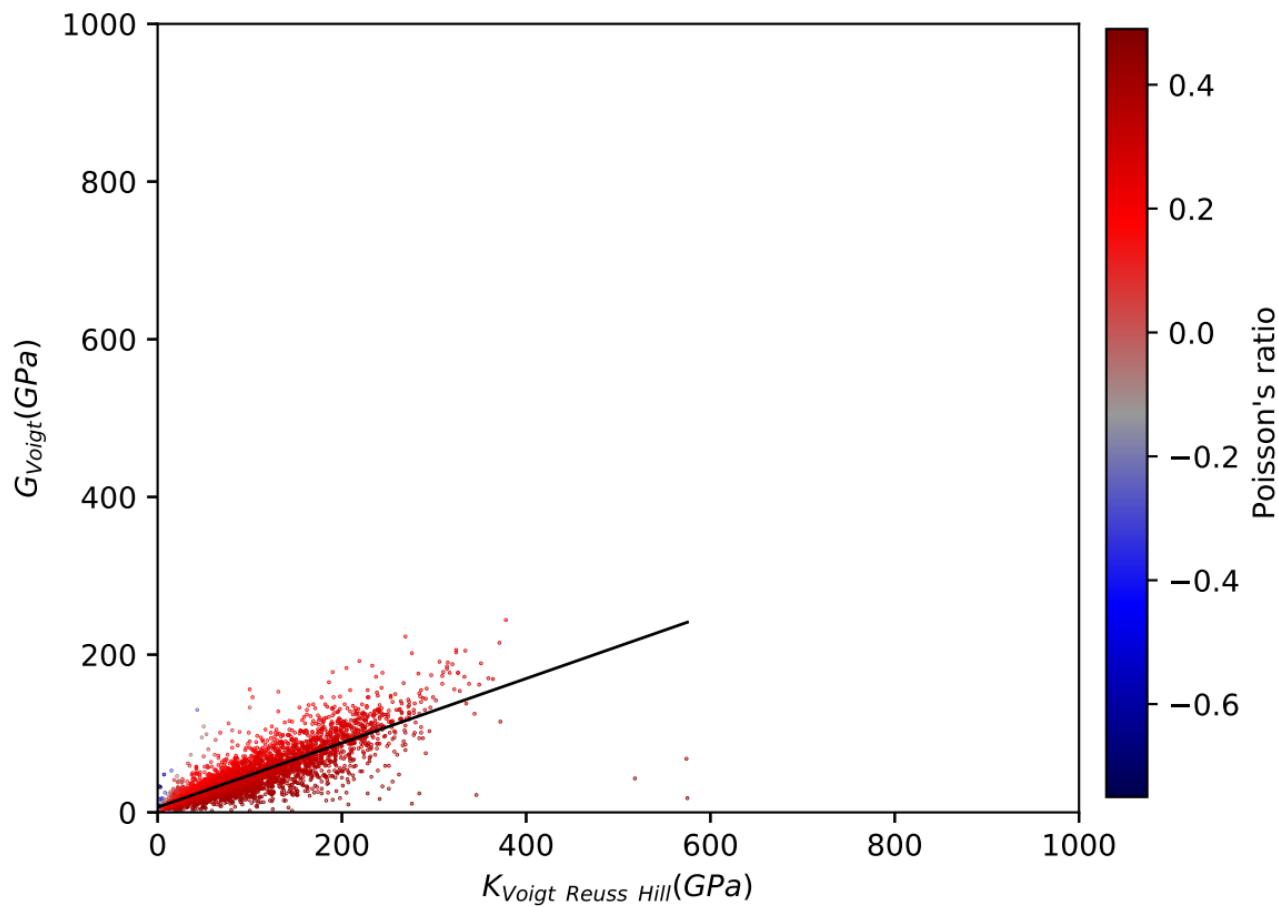












$G_{Voigt\ Reuss\ Hill}(GPa)$

1000

800

600

400

200

0

$K_{Voigt\ Reuss\ Hill}(GPa)$



Poisson's ratio

