

## Annie Vocal Score

Die Tote Stadt Vocal Score  
Three Song Cycles in Vocal Score  
Don Giovanni Vocal Score  
Handel's Oratorio Joshua, in Vocal Score ... Arranged by V. Novello  
The Musical Times and Singing-class Circular  
Musical Times and Singing Class Circular  
Catalogue of Organ Music; also sacred music with English words; published by Novello & Co., etc.  
St. Matthew Passion in Full Score  
L'enfance du Christ, Op 25. in Full Score  
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Catalogue of the Universal Circulating Musical Library, including the Supplements of 1855 & 1856  
Handel's Oratorio, Samson  
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Handel's Ode for St. Cecilia's Day ... in Vocal Score, with a Separate Accompaniment for the Organ Or Pianoforte, by V. Novello  
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this 1920 vocal score is from a three act opera that dramatizes a young widower s obsession with his late wife an appendix provides an english translation of the original german libretto

contents songs of a wayfarer kindertotenlieder das lied von der erde

romance murder and revenge mozart s masterpiece offers an ingenious blend of comic and tragic elements in recounting the adventures of a dashing libertine reproduced from an authoritative early edition

great choral masterpiece long considered the noblest most inspired musical treatment of the crucifixion of christ reprinted from the definitive breitkopf härtel edition

unlike much of berlioz music this meditation on the childhood of christ is restrained lyrical and delicate the three part work is scored for seven solo voices chorus and orchestra combining dramatic action and theatricality with philosophical reflection and moments of serene contemplation the singing text appears in french and german

music theory through musical theatre takes a new and powerful approach to music theory written specifically for students in music theatre programs it offers music theory by way of musical theatre not a traditional music theory text music theory through musical theatre tackles the theoretical foundations of musical theatre and musical theatre literature with an emphasis on what students will need to master in preparation for a professional career as a performer veteran music theatre musician john franceschina brings his years of experience to bear in a book that offers musical theatre educators an important tool in equipping students with what is perhaps the most important element of being a performer the ability to understand the language of music in the larger dramatic context to which it contributes the book uses examples exclusively from music theater repertoire drawing from well known and more obscure shows and songs musical sight reading is consistently at the forefront of the lessons teaching students to internalize notated music quickly and accurately a particularly necessary skill in a world where songs can be added between performances franceschina consistently links the concepts of music theory and vocal coaching showing students how identifying the musical structure of and gestures within a piece leads to better use of their time with vocal coaches and ultimately enables better dramatic choices combining formal theory with practical exercises music theory through musical theatre will be a lifelong resource for students in musical theatre courses dog eared and shelved beside other professional resource volumes

fritz bennicke hart 1874 1949 stands as one of the more astonishing figures of the so called english musical renaissance this long overdue biographical study explores and assesses the substantial and lasting contributions he made to the musical life of england australia and hawaii as tregear and forbes have richly documented hart was a charismatic and extraordinarily productive composer conductor educator and institutional leader whose life journey in music throws new light on the aesthetic concerns of early twentieth century imperial britain and how they were received and refracted at that empire s farthest extent

actors know about falling up a split second ignition from the wings propelling entrance as a new character an unwilling ascent to a different mode of being an in body experience that overlays preparation opportunity choice or chance falling up the first and only full length floyd study is a metaphor for humanity s uncanny ability to rise from seeming disaster into rebirth floyd s consistent succession of soars stumbles slides or wrenches sings of triumph over odds a modern renaissance man floyd is our greatest living opera composer and librettist a trained concert pianist a master stage director and a teacher in falling up holliday offers an intimate account of the life that shaped the words and music combining insights from hundreds of interviews with floyd his family and many of the last half century s greatest singers conductors and opera administrators falling up traces floyd s southern roots and the struggles and sacrifices that accompanied his rise to operatic stardom with more than forty photographs the detailed evolution of floyd s fourteen operas and in depth analysis of his nonoperatic works falling up is essential reading for opera fans and professionals alike a book that moves informs and entertains

a favorite with audiences and musicians since its first performance in 1831 this tale of two lovers unfolds in an idyllic village setting bellini was one of the most popular composers of his era and this opera is particularly admired for the simplicity and economy of its orchestration and its inspired lyricism

unaccompanied choral works composed or otherwise arranged by brahms for mixed choruses as well as individual men s and women s choruses include songs love songs romances quartets and duets

aus holbergs zeit suite im alten stil op 40 now more commonly known as the holberg suite was written in 1884 for the 200th anniversary celebration of playwright ludvig holberg s birth originally for piano the composer scored it for strings the following year conducting the newly completed arrangement at a march concert in bergen the suite consists of a prelude and four dances characteristic of the 18th century the work was meant to capture the feel of the era of holberg s lifetime and has become one of grieg s most beloved and performed works especially in the present setting for strings this new edition by richard w sargeant jr has been thoroughly researched to bring you a beautiful score as the composer intended it

beethoven s only opera is a staple of companies the world over and among the most performed musical works of the 19th century stage the composer s genius for orchestration is combined with the drama of the human voice emotion filled arias and an intense finale valued for its bold sentiments of liberty and loyalty as well as its innovative music writing fidelio is an essential score for study by students conductors singers and music scholars this work is reproduced from an authoritative edition including all german dialogue complete with numbered movements for easy reference affordable and compact this miniature score edition is ideal for use in the classroom at home or in the concert hall

a masterful coda to a prolific career this brilliant oratorio was haydn s last major work unabridged republication of the work as published by c f peters leipzig n d english translation of front matter

this divine and enduring milestone of opera is both a lighthearted fairy tale and an epic story of the struggle between good and evil authoritative complete and low priced edition

the crowning glory of bach s lifework in the field of sacred music and a universal statement of christian faith reprinted from the authoritative bach gesellschaft edition includes translation of text

in the 1950s meredith willson s the music man became the third longest running musical after my fair lady and the sound of music a considerable achievement in a decade that saw the premieres of other popular works by rodgers and hammerstein and lerner and loewe not to mention frank loesser s guys and dolls and bernstein and sondheim s west side story the music man remains a popular choice for productions and has been parodied or quoted on television shows ranging from family guy to grace and frankie though willson is best remembered for the music man there is a great deal more to his career as a composer and lyricist in the big parade author dominic mchugh uses newly uncovered letters manuscripts and production files to reveal willson s unusual combination of experiences in his pre broadway career that led him to compose the music man at the age of 55 mchugh also gives an in depth look at the reception of the music man and examines the strengths and weaknesses of willson s other three musicals with his sustained commitment to innovation and novelty the big parade is packed with new revelations about the processes involved in writing these works as well as the trials and tribulations of working in the commercial theatre

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## Understanding the pKa of Nitric Acid (HNO<sub>3</sub>)

Nitric acid (HNO<sub>3</sub>), a strong mineral acid, plays a crucial role in various industrial processes and chemical reactions. While its strength is widely acknowledged, understanding its precise acidity, expressed through its pKa value, offers a deeper insight into its behavior and reactivity. This article aims to provide a comprehensive understanding of the pKa of HNO<sub>3</sub>, exploring its implications in different contexts and addressing common misconceptions.

### What is pKa and why is it important?

pKa is a logarithmic constant that indicates the strength of an acid. It represents the negative logarithm (base 10) of the acid dissociation constant (Ka). A lower pKa value signifies a stronger acid, meaning it more readily donates a proton (H<sup>+</sup>) in a solution. Conversely, a higher pKa value indicates a weaker acid. The pKa value is crucial in predicting the equilibrium position of acid-base reactions, determining buffer capacity, and understanding the behavior of acids in different environments.

### Determining the pKa of Nitric Acid

Unlike many weak acids where the pKa can be experimentally determined through titration curves, determining the pKa of nitric acid presents a challenge due to its complete dissociation in aqueous solutions. HNO<sub>3</sub> essentially ionizes completely into H<sup>+</sup> and NO<sub>3</sub><sup>-</sup> ions. This complete dissociation makes the determination of Ka, and consequently pKa, through standard methods, inaccurate. The commonly accepted pKa of nitric acid is -1.3. This value is often derived from theoretical calculations and extrapolated from related compounds rather than direct experimental measurement. The negative value highlights the exceptionally strong acidic nature of HNO<sub>3</sub>. This means that in water, nearly all HNO<sub>3</sub> molecules dissociate, resulting in a high concentration of H<sup>+</sup> ions.

### Implications of a Low pKa

The extremely low pKa of HNO<sub>3</sub> has several important implications: **High Acidity:** HNO<sub>3</sub>'s high acidity makes it a potent proton donor. This characteristic is utilized in numerous applications, including nitration reactions (e.g., synthesis of nitrobenzene), metal dissolution (e.g., etching of metals), and acid-catalyzed reactions. **Complete Dissociation:** The near-complete dissociation of HNO<sub>3</sub> in aqueous solutions means it effectively behaves as a source of H<sup>+</sup> ions rather than an equilibrium mixture of undissociated and dissociated forms. This simplifies calculations involving its concentration in reactions. **Strong Oxidizing Agent:** Beyond its acidity, HNO<sub>3</sub> is also a potent oxidizing agent, particularly at higher concentrations. This oxidizing power is independent of its pKa but is a significant feature of its chemistry. For example, concentrated nitric acid can oxidize copper metal to copper(II) nitrate. **Example:** Consider a reaction between HNO<sub>3</sub> and NaOH. Due to the complete dissociation of HNO<sub>3</sub>, the reaction proceeds essentially to completion:  $\text{HNO}_3(\text{aq}) + \text{NaOH}(\text{aq}) \rightarrow \text{NaNO}_3(\text{aq}) + \text{H}_2\text{O}(\text{l})$

## Practical Applications of HNO<sub>3</sub>'s Acidity

The strong acidity and oxidizing power of HNO<sub>3</sub> find widespread applications across various industries, including:

- Fertilizer Production:** HNO<sub>3</sub> is a key component in the production of ammonium nitrate (NH<sub>4</sub>NO<sub>3</sub>), a widely used nitrogen-based fertilizer.
- Explosives Manufacturing:** HNO<sub>3</sub> is utilized in the production of various explosives, including nitroglycerin and trinitrotoluene (TNT).
- Metal Processing:** It's used in metal etching, cleaning, and passivation processes.
- Chemical Synthesis:** HNO<sub>3</sub> serves as a crucial reagent in many organic and inorganic chemical syntheses.

## Conclusion

The pKa of nitric acid, though challenging to directly measure, is a crucial parameter reflecting its exceptional strength as an acid. Its extremely low pKa value of -1.3 underscores its complete dissociation in water, leading to a high concentration of H<sup>+</sup> ions and making it a potent reagent in numerous industrial and chemical applications. Understanding this property is crucial for predicting its reactivity and utilizing its unique characteristics effectively.

## FAQs

1. Can the pKa of HNO<sub>3</sub> be directly measured experimentally? No, due to its complete dissociation, standard methods for pKa determination are inaccurate for HNO<sub>3</sub>. The value is usually derived from theoretical calculations and extrapolations.

2. Is the oxidizing power of HNO<sub>3</sub> related to its pKa? No, the oxidizing power is a separate property and is not directly dependent on its pKa. It's primarily due to the nitrate ion's ability to accept electrons.

3. What is the difference between concentrated and dilute HNO<sub>3</sub>? Concentrated HNO<sub>3</sub> has a higher concentration of HNO<sub>3</sub> molecules, leading to increased acidity and oxidizing power compared to dilute HNO<sub>3</sub>.

4. What are the safety precautions when handling HNO<sub>3</sub>? HNO<sub>3</sub> is corrosive and can cause severe burns. Always handle it with appropriate safety equipment (gloves, goggles, lab coat) and in a well-ventilated area.

5. How does the pKa of HNO<sub>3</sub> compare to other strong acids like HCl and H<sub>2</sub>SO<sub>4</sub>? While all are strong acids with very low pKa values, HNO<sub>3</sub> typically has a slightly higher pKa than HCl but a lower pKa than the first dissociation of H<sub>2</sub>SO<sub>4</sub>. The differences, however, are relatively small within the context of their strong acidity.

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